Transcript for Teaching Talk#15: Crowdmark: A Really Good Online Grading Tool

Aron Fazekas: All right, well I'm going to get things started. So good afternoon everyone, my name is Aron Fazekas, I'm an Educational Developer with the Office of Teaching and Learning. So just before we begin today's webinar, I wanted to start off by just acknowledging that we are all in various places that are governed by different treaties and relationships to the land, and as we consider those relationships, it's important to remember our collective responsibilities to each other as we consider how we can each enact inclusion and respect in our daily lives and actions. So again, welcome to the webinar this afternoon. I'm just going to go through some quick housekeeping items. So, first of all the webinar is being recorded and actually today we're going to make sure that we record the entire presentation, as well as the question and answer section. We'll have a link posted in a couple days that will get you to that recording. So, the structure loosely today is we're going to have our panelists talk for about 15 minutes. We're going to aim for about 15 minutes to leave lots of time for questions and answers as they anticipated that you'll have many questions for them. You'll notice that your audio and video are turned off and that will remain off for the duration of the webinar. In order to ask questions, you'll notice that there is a Q&A tab in the ribbon at the bottom of your screen, and you can use that to pose your questions to the panelists, as they're talking or if you have something that you think of afterwards, you can use that to ask your questions. So, with that, I'm going to turn it over to our panelists today. I have the pleasure of introducing Kim Levere and Matt Demers from the Department of Math and Stats, and Julie Vale from the Department of Engineering.

Matt Demers: Great, so I guess I'll start. So welcome, and thank you for coming, I'm Matt Demers as I was introduced. I'm really happy to have you along. I just wanted to say this is a presentation on Crowdmark and this is a follow-up to a presentation that Julie and I gave a few weeks ago on some different teaching strategies for our winter courses, and there's great interests about the software that we spoke of. So, this is the result of that. It's not meant to be a sales pitch. I don't want to make it seem like we're advertising or being infomercial or anything. We really just want to share some of our experiences and talk about why it is a really good online grading tool in our experience, which is kind of why we left things like that. For myself, this was a software that OpenEd came to me with five years ago asking me to try it for one of my very large classes ahead of the fall semester and I jumped in and I was really satisfied. It's changed my workflow and the way I deliver courses for the better, for many reasons, and what this presentation is going to be about is really just kind of showing you what kinds of things that this can do that are not so easy to do with Courselink and Dropbox or some different sorts of features and that's really what this is about. We're going to leave a lot of the nitty-gritty details about how it works to questions perhaps afterward, if you're interested in that. So, Julie if you want to flip it to the next one, that would be awesome.

Matt Demers: So, my own experience is a little bit mixed, I've used Dropbox for a few things especially in the winter semester of 2020, where we had to switch things in a hurry. I found that in some cases Dropbox provided a quick solution when I wasn't quite set up to do everything through Crowdmark anyway, so I have a little bit of experience there and I've used it for a couple of things in the past as well. There's some frustrations that came with that and maybe these are things that you've experienced too in different sorts of contexts or when you've delivered different assessments. So, things that I've generally found in discussions with Julie and Kim, as we were putting together this presentation we were talking about some different things; it's a little bit slow and clunky and a bit awkward.

We have many different students; it could be really laggy to switch between them. I found that when I was grading projects for numerical methods in the wintertime that I'd be working on one paper and to switch between them, it would mean that sometimes I would back out, go over, find the next file for the next student, go back in, and it felt like there were many button presses required to do really simple tasks in some cases, with loading between each step, and maybe I was doing it wrong, I'm not sure. There were some things that were challenging about it though and frustrating interface-related things as well. Some of the annotating tools and the layout of different things, they were a little bit awkward, I found. That, of course, might be something that clears up as you use something more but the other thing I really found was that when you have more free form - right, so for example if I have a report that might involve an extended response, plus some images, plus some code, and so on. So, one student might have many files, one student might have one or two, so there's a lot of times when I have to click out, try to find the right file, maybe a student had uploaded another newer version or something like that, and trying to find the right thing involved another loading screen and whatever it was, it was kind of challenging in some ways. There's limited options for auto-grading. we know that we can use Courselink multiple choice and some of the different options involved with quizzing there, but if you also want to use uploading tools for an extended response, short answer, and that stuff, that kind of forces students to go in multiple places and work in different sorts of contexts, which adds to the potential for confusion and so on. So, when there are other option available, that's kind of where this is born from. There are some interesting things that Crowdmark brings to the table here, and finally there are certain times when I found it difficult to catch tech errors, so if a student submits to the wrong box or perhaps a student says that they submitted something, but no file appears, it could be difficult to detect some of these things. Whereas, in Crowdmark there are solutions for this too.

So, in general, some of these things may be highly specific, based on context, or via specific assignment, and so on, but there are some limitations to Dropbox and some things that I personally found a little bit frustrating and part of that might be a bias from having used Crowdmark for several years. But I think that this is kind of a common thread that I've had many professors share when I've spoken about their own experience as well. So, from here, I'm going to drop it off to Kim and she can speak about some of those things that Crowdmark brings to the table.

Kim Levere: Thanks, Matt. Kim Levere here from Math and Stats. I've been using Crowdmark along with Matt for about five years as well. I've learned a lot of the ins and outs which I'm sure we'll get through in the midst of the question and answer and so on. So, I'm going to try and keep it as brief and short as I can because there are lots and lots of things that could be said here. We're going to try and give you bare bones here. So Crowdmark is an online cloud-based grading platform, it does allow for both remote and traditional assessments.

So, when I first used it, I was face-to-face, of course, and I used it both from an assignment perspective - so students completing assignments and uploading on their own, as well as traditional – like exams, tests, things like that, where the workflow is very similar to what you're already doing: print out test, hand out test, students write test, correct test, and then we upload it to the system for grading. So, from that perspective, it's really similar in spirit to what you're already doing, in terms of giving an assessment and grading it. They allow for both long answer and multiple choice as you can see here in the screenshots, and they give TAs the ability to grade simultaneously with a variety of different grading tools. So, you see check marks, you can see somebody has annotated with a stylus, or a mouse, something like that, and you also have the ability to type comments with or without marks attached to them. So, these sorts of things have the ability to save the TAs and you a lot of time and increase the consistency of grading the multiple choice. Down here, toward the bottom of the screen is just a capture of the traditional bubble card that you might be used to if you've used Scantron or something like that, and perhaps we'll get into a longer conversation about a little bit more of what's going on in these pages when we hit Q&A. So, if you can just advance for me there, Julie. Thanks.

So, what do students see? So it depends. I've already sort of mentioned that there's two different types of assessments, so you can do assignment-based, shall I call it, where you send the assignment to the students, they complete it, and they upload. So, for instance, the student would get an email from Crowdmark saying "Hey, heads up, assignment one is here for you" and they will get an email that looks a little bit like the screen capture here, that outlines the question and gives them a little dropbox for them to drop their answer to that question. So, it eliminates a lot of those like techy problems in a sense, because it's right there, that's where you drop it. You can see that you can actually attach pdfs and things to your questions in case you already typed them elsewhere or you have fancy pictures or something like that that you also want to include. The other option of course is if you're face-to-face, the students would just see the regular test paper. So, the face-to-face version looks exactly the same as it always would, so for students that version is identical. So actually, in the winter I've used this remotely in the assignment version of things where students just received emails with assignments and exams, and then they had to upload their answers in the available boxes.

So, I'll just leave that conversation there. I believe I'm passing off to Julie now, for some key benefits

Julie Vale: Sorry, I was trying to unmute and I ended up going forward on my screen instead. Okay, so when we're saying key benefits, these are things, in our opinion, are much nicer in Crowdmark than they are in a system like Dropbox which you may already be familiar with. So, the first one is down on the bottom left there, we can see that you can have a live-per-question- assessment of the data. So as your TAs are grading, or as you are grading, these statistics will be updated, and you can select by question. If you've gone so far as to break your assessment down by parts so 1. a, b, c, d, you can get that resolution as well, and then you can also see the total overall exam results. In this way you can get a pretty quick idea of "Hey, that question, I expected it to be hard, and yep there's a lot of people who aren't doing so well" or "Oh, that question was supposed to be easy, how come it's bimodal?" like it's a scoop instead of something that looks more weighted towards one side, and it can help you preemptively identify problems with the grading process that you have or maybe the grading scheme wasn't what you meant it to be or something like this.

Then, over on the right what you'll see is one of the many dashboards that are available to you in Crowdmark and it allows you to see - this is a complete exam, but if it was in process, you would see maybe 30 out of 500 exams have been graded. The funny-looking little symbols under "Grading complete", each one of those is a unique symbol associated with your TA or you. So, you can see in this particular example that there are five people involved with the grading and the system will keep track of who's grading what. It allows, if you want, two people to grade the same question, or, if you don't want, only one person to grade a question, and so it really is very good at helping to manage larger grading teams, specifically for larger courses. Okay, it also allows you to provide rich and more specifically consistent feedback. So again, this is comparing remote assessment via Dropbox and remote assessment via Crowdmark. So, if you've ever tried to grade an exam or a large project in Dropbox, either you've got to use a rubric, which restricts you in terms of what kind of feedback you can provide, or you need to go through the pain of annotating the pdf and re-uploading it, and all of that other kind of frustration, or you just end up saying "I'm just going to put my comments in the comment box".

So what Crowdmark allows you to do is have a comment library and there's an example here of what that might look like, and you can add and update and edit the crowd the comment library as you grade. By attaching marks to the comments, which is optional, you can ensure that there's consistency so that if there's a certain kind of mistake and you want that mistake to always have a minus one, then it will. Similarly, if there's a certain thing you're looking for and you want to make sure that always gets a plus two, it will. The really nice thing about this is: if you change your mind halfway through, you edit the comment library and it backwards-changes every single comment that has already been applied to a graded exam, so you don't need to manually go through and update all of that stuff, which is so nice in terms of efficiency. The other thing, whether we're talking about online assessments, like we've been pushed into for the winter and many of us will be doing in the fall, or whether you're talking about a more traditional exam setting, where you're still using Crowdmark to manage the grading, is that it's a one-button click to distribute the exam with all of the feedback to the student through secure email.

Julie Vale: So, if any of you have had larger classes where you've tried to figure out how on earth to return the exams to the students following the rules of FIPA and privacy, for me, for my classes, it used to take many, many hours now it takes 30 seconds, and this is also directly associated with Courselink so you can click the button that says export grades to Courselink and everything is automatically sent over. If you don't have a gradebook item it's automatically created and bang, you're done. It's really quite nice from that point of view. So, this is the high-level overview that we wanted to give you. I imagine there's many questions about many different things but before we jump into that, if you are now interested in using Crowdmark, it's not free but the university, or aspects of the university, are currently in negotiations for fall 2020 licenses, so if you are interested in using this, if you could ask your Chair to contact Karen Gordon, the CEPS ADA, she's one of the point people working on getting these licenses. It would be very valuable for her to know how many people and how many students we need to be covering for the fall. So the individual instructor, historically, does not need to cover the cost, but we have had licenses where you've had to identify if you want to be using it and if you miss that window of saying you want to use it then you're out of luck. So, we are in that process right now, so if you are interested, on behalf of Karen, please don't send her individual emails, please get together with the people in your department who might be interested and send one email from your Chair, that would be fantastic. I don't want to unintentionally inundate her with all kinds of questions about Crowdmark, and so on that note, we promised to keep it short and sweet, so we could leave lots of time for questions. So, are there any questions?

Aron Fazekas: Thanks everyone. So, I think one of the first questions that came in is around the licensing and the cost. So, I don't know if you can speak to what the cost is and how it has been covered in the past. Maybe what you're looking to hope to do in the future, this fall.

Matt Demers: I don't know, do you have anything specific you want to say, Julie or Kim? As far as I know, there are two schemes that I was introduced to, and this may have changed, where it's either a cost per student in a course, or if the student is registered in multiple courses that want to use this, there's a cost per student across all of the courses, that sort of thing. It comes out to, when I last checked, like three bucks per student in a single course or like seven bucks for multiple courses so like somewhere in that, sort of. It sounds like it might be a lot but if you actually do the math for a class of say 400 students, that would be $1200, which would be like a quarter of a TA or less than that, which is a lot of value. It's a lot of value especially when you consider things like the privacy of return that Julie mentioned or the consistency of grading which saves a lot of time. There are so many benefits that that sum of money, even though it sounds like it might be steep at first, really in context, if you compare it across the cost of a single TA it's not that much, I would argue.

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otl.uoguelph.ca
otl@uoguelph.ca
Day Hall, 99 Trent Ln, Guelph, ON N1G 1Y4

Julie Vale: Also, just to add to that historically, as far as I know, the Chairs of the departments have never paid the cost. It was a partnership between, I think, the Office of Teaching and Learning or OpenEd. I'm not quite sure which silo and CEPS, the College of Engineering and Physical Sciences. So, there was a base number of per-seat licenses that were covered and then anything that CEPS wanted over and above that came out of, I believe, Karen's ADA funding. She would have to make an argument for that. So that's part of why we're asking that you speak to them earlier, because as Matt pointed out, there are two different funding structures and the more students, the more people you have that want to be using this the more effective it is for us to buy a student-based license instead of a course seat. So, when you're talking about low numbers, you want to be buying a number of seats in courses, and that was what we had done historically and then all of a sudden there was this huge uptick in the number of people who wanted to use it, and it was like oh no, because what we really wanted was the other one. So, if we are going to see that again where there's going to be this massive uptick in the number of people who want to use it, it's better for us to know that early, so that the university can negotiate a better deal.

Aron Fazekas: Thanks. So, there's a couple of questions from different people wondering if there is a trial version or some mechanism for people to play with it and see how it works before actually buying in.
Julie Vale: I don't know. Kim, do you know? I mean, worst-case scenario, we can do a five minute trial now, like I've got it up and running, ready to go, if people want to see what it looks like. I know that's not the best, but I don't know if there's a trial version.

Matt Demers: I understand the whole idea behind being a little leery about it, like for context, when OpenEd came to me the first time, it's a funny story, because I was asked to use the software with a couple of weeks ahead of my a fall Differential Equations class with 500 students in it. I was so resistant, like, you know, you have something that works well, you teach a large course, you're freaked out like "Don't touch my stuff, it works" right? Because it's a well-oiled machine even if there are some things about it that aren't as efficient and you don't realize it while you're in the thick of it, it's scary to have somebody say "Hey use this tool" and it was, but I kind of agreed to be a guinea pig and it actually turned out really well. It's fairly idiot-proof, so even after, if you were to adopt it, there's nothing that's stopping you from playing with it at the start, ahead of the course or at the beginning of the course to kind of see and play with some of those things. Again, as Julie said, we're all happy to help. I don't know, Kim do you have some stuff to say?

Kim Levere: I mean, I've done lots of how-to sorts of seminars on Crowdmark as we slowly gained some excitement at U of G and even within this little webinar, hopefully, you'll start to see some of the functionality as we start to share our screen and show you some of the different things that can be done. So let's just play with the Q&A and feel out what it can do and see what you think of it. As far as I know, there's no way to actually demo it other than once you're already online and you can play with it and learn how it all works, but hopefully, we can show you enough that you feel comfortable.

Matt Demers: Yeah, it's not scary.

Aron Fazekas: Thanks. So related to that, there's a question, I think you've probably addressed it by now, but the question was: what is the learning curve for instructors, is it pretty self-explanatory, how easy is it to implement that comment library that you were showing?

Julie Vale: The comment library is implemented as you go. So if you want your grading and you're like: "I want to make this comment", you type a comment in. It's now in the comment library, and it automatically remembers it.

Matt Demers: It's literally a button press, like the whole thing is mapped to hotkeys, it's getting a little bit into the nitty-gritty here, but you literally press the 'v' button and it brings you to a comment window, wherever you click, and you can type whatever you want, and then it just remembers it, as long as you're in that assessment and you can drag and drop. It adds it on the go to your library so (audio overlap) could create something new.

Julie Vale: So, I can create a new comment that says "Hello", and then I can make it worth two marks. There you go, now it's part of the comment library. I'm gonna get rid of that because I don't want it to stay. So it's very very straightforward from that point of view and like I'll also echo what Matt said, I was one of the people who when Matt and Kim were like "We're gonna do this Crowdmark thing, it's online greeting!", I was like, "No, that's evil! I need to be able to write down the page and I need to be able to do all of these other things!", and so they convinced me to try it and I did and I have never ever looked back. So I've also helped quite a few people in engineering get on board with us and in my experience all it takes is sitting down together once to do one assessment, just to set it up and that takes maybe half an hour maximum, including like figuring out how to upload and how to set all of that, and then I walk them through the grading process. Once again maximum half an hour and they're set, and they're happy, and it works, and they take it and they're like "Man, why didn't I use this sooner?" I have yet to have anyone come back and say to me "Man, that's a horrible piece of software, I'm never touching it again" and like I said you have us having been through it a little bit and having a couple of best practices to pass along as well. Maybe the first two times we did it we were like "Oh man, it would have been really great if we did this". So yeah, I can foresee a best practices list showing up as well, just to save you some of the "oops" that we maybe went through.

Aron Fazekas: Yeah but, right away as someone who's never used it before, I can see the value of a question library. So as an instructor you post your comment and what you think that should be as far as marks and then it's there for all the TAs to see. Yeah, that's fantastic.

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Matt Demers: You know what? It's easy to contextualize, right? There are lots of similar kinds of mistakes but then there are other tools too right? You see on the page that there's a drawing. You can actually click another button and just draw something and maybe identify exactly what the error is and then insert a comment that says "Missing number. -1" or whatever right? That way, it becomes a highly personal but really quick marking experience. It saves time too, in my experience.

Julie Vale: this system has cut my grading time in half, like quite literally. I mean, I'm talking about large courses here between 200 and 400 students, but it absolutely cuts the grading time in half and it makes it so that you don't need to worry about shuffling paper around and all of these other things, but I mean that's talking about the more traditional face-to-face assessments. I think the situation we're in right now and this term is a little different and I do also think it's going to cut my grading time in half compared to if I had to do this in in Dropbox. When I was trying to decide how I was going to do my exams for the winter and I started thinking maybe I could use Dropbox. I wanted to cry thinking about trying to make that work as compared to what I was used to doing in Crowdmark.

Aron Fazekas: All right, I'm going to ask a couple of short questions, well what I think will be short answer questions, and then there's some ones that might be a little bit more involved. So where did it go? Here. Can you combine multiple choice, short answer problems in one evaluation?

Julie Vale and Kim Levere: Yes. (Laughter)

Aron Fazekas: How do you implement questions, i.e., multiple-choice, is that easy to do? I think that's probably the same question.

Kim Levere: Sort of, so usually, what I would do is I would just create my regular exam with all of my questions and then all you have to do is tell Crowdmark "Hey, there's multiple-choice involved in this", it attaches a bubble sheet to the end of the assessment, so if there were short answer questions, those would come first, multiple-choice bubble sheet comes dead-last, looks kind of like the thing at the bottom. Thanks Julie, and then you just specify an answer key within Crowdmark and that can be changed even up to the time that you start grading. So yeah, totally fine.

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otl.uoguelph.ca
otl@uoguelph.ca
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Matt Demers: It also represents a change, if I may, a change from Courselink where I know that many of my colleagues have had trouble with recognizing there's an error in a a Courselink multiple-choice exam or whatever and having to like back out and create something new or dealing with things like that. So really, things that are more complicated than they need to be, I would say, whereas here, yeah, changing the marking scheme on the fly is just a trivial part of the way it's created.

Aron Fazekas: Thanks. Okay, so in your example you show some handwritten work from a student. How does the student upload that do they take a photo or scan that?

Julie Vale: So that's what this looks like. So this is a direct screengrab of what the student will see when they are doing one of these remote assessments and they log into Crowdmark. So in this example, you can see that it says Question 1.pdf, so the student has the choice of downloading that pdf, printing it, writing on top of it, and then scanning or taking a photo and then uploading that scanner photo, or actually, if they have a tablet that allows for it, they can download the pdf onto their tablet, annotate on the tablet, and then just upload that annotated pdf directly. I'd have to sort through my exam to see, but I had examples of both of those things on my winter exam.

Matt Demers: A third, actually: so for my course in the winter time, I also just allowed students to freeform answer questions. They could download the exam like a template but then just upload scrap paper with their work on it. So it's super flexible. Whatever you find acceptable for your course is fine. It'll eat up whatever you want to throw it.

Julie Vale: Yeah, so it's quite accessible.

Kim Levere: Yeah, pdf, jpeg, and possibly others, but I'm pretty sure those two for sure.
Julie Vale: Yeah, so it improves the accessibility, so if you have a student who doesn't have a printer, no big deal. They can be looking at the screen with the pdf and they can write it down on a piece of paper, no problem.

Aron Fazekas: So I'm just going to skip ahead to another question because I think you just answered it. So the question was: can you upload an exam as a whole pdf file, instead of having to basically type each question itself and assign a mark to it, the way you might in another system? Julie Vale: Correct. So, you go ahead, Matt, and talk while I pull up the example from this.

otl.uoguelph.ca
otl@uoguelph.ca
Day Hall, 99 Trent Ln, Guelph, ON N1G 1Y4

Matt Demers: Yeah, like there are options there. I mean, to be quite honest the easiest way is to create an exam the way you normally would, with no changes whatsoever, and then make that exam available at test time. So I created a a Courselink announcement at the start of my winter semester exams, and there, opened up the content on Courselink, allowing for them to access the blank copies of the exam, so they could see it and then they would upload the results to Crowdmark, with however format they wanted to work with. You can link to things there like like Julie has.

Julie Vale: Yeah, so you have a lot of different options, right? So this is what the students would have seen for my winter exam, and so you can see the instructions pdf is here that's your traditional front page of your exam, and then just because I knew some students might want to do the whole thing, I gave them a link to the whole exam. So if they clicked on that link it will pull up the entire exam which I made in the same way that I would always make my exams. So my workflow is no different. This is what the exam looks like, away you go, you make your pdf, right? So then, what I also did to make it a little bit easier for them, to try to reduce the number of potential errors, was I then also split it up specifically like "Okay, this is question one, this is the stuff that I want you to be putting into this block", and so they would click on this and it would be only the page that has question one from this original big file. So I was layering it and then the other thing that I did just to make absolutely sure that if they had an internet problem was I also posted this full exam page onto Courselink so that they could download it from Courselink and not need to go into Crowdmark for that initial step, if they wanted to. So it was just to cover as many bases as I could.

Kim Levere: If they screw up and they put stuff in the wrong box, it's a couple of quick clicks to drag and drop to the right place and you can quickly reorganize, reorder, do whatever you need to do to fix it.
Julie Vale: Yeah, and the other piece that's important to that too is that when you're looking at the exam results - so if we go into q1 so this is the question one component. Am I sharing the right thing here? Yeah, okay. So this is the question one component. So let's say that this student made a mistake and they uploaded question one into question two. It wouldn't show up here, but the TA can then just scroll down to the question two section. The instruction I gave to my TAs was if a student doesn't have something uploaded for your question, just scroll through the exam and take a quick check to make sure that it's not there. If you were doing this in Dropbox and you had a different Dropbox for every question, the TA would have to manually go into every single Dropbox to check to see what that student's submission was to see if they had submitted and we absolutely did have students who had put the wrong question into the wrong slot.

Matt Demers: Totally. Just for contact, do you want to click the overview grid for just a second? I think that would be a really helpful thing to just do here. Yeah, you can see that instructors and graders have this kind of interface here that shows you exactly who has uploaded what questions and which ones are finished grading.

Julie Vale: I just realized I shouldn't have clicked that because it had student names and grades.

Matt Demers: Oh shoot, sorry. Nobody saw anything. But there, it's so easy to scroll through really idly and wherever there's a missing spot something was either not uploaded or uploaded to the wrong spot, without having to load anything, without having to check every single freaking page. It's so, so good; it's just really, really helpful and it speaks to the point that I made in that very first slide about what Julie is talking about now, right?

Aron Fazekas: All right, I'm going to ask a couple other questions here. Maybe this one - I'm just going to ask it. So I can see that this would be useful for equation solutions but if they have long or short form word answers, how good is the software at interpreting the student's response compared to the correct answer?

Matt Demers: Software is not interpreting the response. It's like traditional grading but virtual, right? For extended responses you still have the tools of making check marks, making x's, making comments, doing drawings ,and stuff like that, but TAs and you will literally have that extended response on the screen. I teach math courses but in every one of my tests I have explanations and interpretations and that kind of stuff. Julie Vale: I think for context, I suspect that what the question is about is auto grading of short answer questions, and at this time, as far as I know, Crowdmark doesn't do that. So it will auto grade your multiple-choice but I don't think it has the capability to auto grade short answer. So if you want that you would need to go to the Courselink quiz tool.

Matt Demers: Yeah, although we spoke about auto-grading to the point of if you read something and you have a consistent thing that's good or error, you can assign marks to that, and then have the ability to kind of see those, as we spoke about before and get sort of a halfway to auto-grading.

Julie Vale: So this is one of the downsides of having students upload their own stuff sometimes they do it sideways. Let me see if I can find a -

Matt Demers: Isn't there a rotate tool on the side that you can use?

Kim Levere: Yes, there is. Go to the little window tool on the bottom left.

Matt Demers: We're still learning, this is a learning experience for everybody.

Julie Vale: Anyway, that's not the point I wanted to make. So what I wanted to make is you can see here that I've asked for a short answer response from the student and there's enough rubric-based information here that the TA can just go plunk plunk plunk and it's pretty quick. It's not as fast as auto-grading, this is true, but it is better than doing it straight up by hand.

Aron Fazekas: So there's a question here about integrity. So can long answer questions like that be linked to Turnitin software to check the originality of responses?

Julie Vale: Well, if you're talking about handwritten responses, Turnitin can't handle that anyway. So what you could do if you wanted to go use Turnitin is you would have to have them upload whatever word file that that you're wanting them to work with, both to the Turnitin software, and then look at the Turnitin rating there, and then you could have them upload here as well and graded here as well, which I'm looking at doing for one of the fall courses that I'm teaching, because it's essay-based questions, and I still want to use Crowdmark.

Aron Fazekas: That's what I was going to ask, so it seems like it's geared or maybe right now works best with short answer questions.

Julie Vale: I think it works best with any kind of question that requires mathematics, drawings, or any combination of those sorts of things, and they can be quite long answer questions. So, this is a first-year exam so if I scroll through this you won't really see that, but I have used it for exams that have 20 mark questions, 20 mark open-ended "Here's this big problem, give me your answer - here's two blank pages to write on". So it allows for the students to use combinations of words, mathematics, figures, and that's its biggest strength. If you're grading essays, I'm not sure, like I said for fall, I'm looking into that myself and I am leaning towards doing a mix between Turnitin and Crowdmark.

Matt Demers: I still think that there is an advantage. I mean, we're risking having a little bit of a debate among the panelists here, but I would say that there's a real advantage to having marks associated with comments and an essay style response because you might be able to get away from some of the subjectivity and say "You know what? This person made this good point" and that is worth three marks, period. Regardless of how it's framed or whatever else, and you might be able to more consistently grade extended responses that way. It really depends on what you want though. My personal feeling is to not diminish the potential for this even for courses away from math and sciences.

Julie Vale: Yeah, so that's a big part of the reason why I'm looking hard at it for the fall. So for context, the fall course is Engineering Ethics, so I'm going to be having them write essays about ethics and I need to grade these and because it's going to be remote, I want to put it through Turnitin, so that's why I'm looking at a pairing Turnitin for the integrity piece, and then Crowdmark for the grading component because of exactly what Matt said: I want my comment library.

Aron Fazekas: So there's a question here and I think that maybe you've addressed it, I think it's a misunderstanding of the platform, but the question is how flexible is the question editor in terms of equations and graphics.

Julie Vale: You make your own file. So you create your own pdf file using whatever tool you wan,t so LaTeX is my best friend, I do all of my stuff in LaTeX, and that was one of my big frustrations with some of the other tools that I was introduced to. You had to upload like a word file, I'm like I don't want to upload a word file, I want to upload a pdf, I want to do it my way, and so Crowdmark lets you create your exam any way you want. Whatever makes you happy, as long as you can pop it into a pdf at the end of the day.

Aron Fazekas: Have students brought any challenges or concerns about the use of Crowdmark?

Matt Demers: Kim, do you want to handle this one? We've been talking a lot over here.

Kim Levere: I'm good, whatever. You guys are killing it, it's great. Yeah I mean, TAs and students alike seem to be very pleased with it, particularly any student on the planet that has ever needed to go and pick up an assignment or a test from one of those giant orange boxes in the library. It significantly reduces that pain. It's also wonderful from the perspective of regrades because students then don't need to figure out a time when they can come and meet you and bring you their test and then you don't have to worry about them having taken that eraser and erased that little bit and said "Yes it was 2! That's what it was". So it's good from both of those perspectives, it saves a lot of time because a student can send a TA or me or whatever "Hey I just wondered about this regrade, the answer on the solution key was this, and I wrote that. I just wondered if that was worth a part mark?" You can quickly pull it up on your machine without really having to do a formalized meeting or set aside time and just give them the verdict by email or the next time you see them. So they like that quite a bit and I don't know I think the functionality of it, even when they were in the winter for instance, when they were doing things remotely and uploading their own stuff, just with a very simple youtube video to help the students understand the process, there were very few issues at all with the understanding of the system. They picked it up really quickLY, these guys are really embedded in the technological world as it is. So they they handled that very well, they liked the the seamlessness of it and they like that everything is is in their email and really super easily accessible. So I personally have not had any negative comments from TAs or students but perhaps, Julie or Matt, I don't know if you've had anything in particular that you wanted to share.

Matt Demers: I was just going to say, that to follow on to your comment about how you can see that if students have uploaded in advance, if they haven't changed anything, and of course Dropbox is the same, because you're taking scans of things, but, what I found to be really useful is kind of surprising. We're talking in-person days, but I mean if I was meeting a student to discuss their performance and so on, we've all had the experience of the students saying "But I don't think that's important" or "I don't think that's the way things are graded" and so on, but, I've literally been able to pull up that question library and say "No, see? Everyone in the class lost two marks for doing this thing, so I promise you're not being treated unfairly" because you can see it, I've got this attached there, so you're not unique, you're not the only one out. I would say, universally, students are like "Oh, okay. I understand," it helps that conversation along or it can if you use it, I found.

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Julie Vale: Yeah, I think I'm guessing here, just based on which courses I know that Kim and Matt teach but I think between the three of us we've probably assessed five to six thousand students through this system and that's multiple assessments per student. I have never had a complaint aside from the occasional - they're really pushing, trying to get something like "Oh. I highlighted this," it's like yes, but we say on the front page that highlighter doesn't scan. I mean the key thing is to be really, really clear with your expectations, you know, we say "Hey, we scan in black and white, don't use colour to show me something - we only scan the front page not the back page." By the way you can, if you wan,t have like a double-sided exam and scan both pages, but I don't. So as long as you lay out those rules, then it's the same as a student who has broken a rule on a Scantron and used like the wrong pencil right? Like sorry, no.

Julie Vale: I've never had a single complaint; all I've had is students super happy with it and actually complaining about the other professors who don't use it.

Matt Demers: Yeah, literally. That's not even an exaggeration I've had students come to me and they said "Why don't we all use this?" I'm like "Oh, you know..." and you kind of downplay it and so on. But, you will get one or two students per semester, I find, where they get sent links through email and so on, so occasionally you'll get the student that's like "I don't have the email with my results" or whatever and you're like "Check your junk folder," that's like the the most I've ever received as far as complaints but it's not really a complaint, it's more of a thing, I don't know.

Aron Fazekas: I asked you all this question before we kicked off with the webinar: can it handle, or how do you handle multiple versions of an exam?

Kim Levere: So the way that Crowdmark handles this is that you just literally create multiple assessments and then the students would upload to whichever one they have. So if it were a face-to-face assessment, the particular assessment they were on would belong to one of the ones that you've set up. There you go, midterm A, midterm B. So the unique identifiers on the actual test that Crowdmark sets up would shoehorn them into one or the other necessarily. They can't submit to the wrong one, that can't happen. So yeah, you would just basically create multiple separate assessments and the students would be forced into one or the other.

Aron Fazekas: Any PC, Mac, platform issues?

Kim Levere: All good. No problems at all.

Matt Demers: Maybe if you're trying to mark from your phone, it's awkward. I don't think it's optimized for that. I know I've tried before and sometimes it's a little bit awkward but who does that?

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Aron Fazekas: So there's a question here about Respondus: how does this integrate with Respondus, it seems that the flexibility is orthogonal to what Respondus is seeking to achieve, that is, only typed text-based responses.

Kim Levere: This does not interact with Respondus at all, as far as I know.

Julie Vale: Yeah, I don't know that I'm the right person to be asking that question to because I won't use Respondus, but I think that's a different webinar, if people are are interested in how to promote academic integrity without using Respondus. Well Matt and I already talked about that a little bit in our previous talk, that actually kind of led to this one, so you might want to go watch that.

Matt Demers: We only look forward but we welcome you to look backward.

Julie Vale: I do know that you can, I know that people have done it. So the lockdown browser will still work, like you can still insist that students put on Respondus and then you're just going to basically be watching them handwrite their exam, right? I have not used the system so I can't comment on what it would mean when you're looking - I know there's flags and I don't know how that would work.

Aron Fazekas: How good is the software at protecting copyrighted materials, so that the students aren't uploading your solution sets to Coursehero or other websites.

Julie Vale: It's just as good as any piece of software, which means it isn't. I mean, you've given them a pdf they can do whatever the heck they want with the pdf, and honestly, if we're gonna be really blunt about that kind of copyright material, they can put something up on their screen and take a photograph of it with their phone if they really want to be uploading stuff to Coursehero. If they're going to want to share your stuff, they're going to share your stuff, no matter what you want to do about it. Matt, Kim and I have all spent time going through the Coursehero website and saying "Take down my notes. Take down my notes. Take down my notes," right? So that's a bit of rant territory, sorry. I'll let Matt and Kim sneak in.

Kim Levere: Frustrating, but true, absolutely. Increasingly, as we are a little more remote, yeah there's other things, other than Coursehero to worry about for sure. So unfortunately, Crowdmark and every other system doesn't seem to have a great way to deal with that.

Matt Demers: I don't have much to add there, except that if you don't want your students to do something, I would say don't be afraid to address it in the instructions for your assessment. Specifically on my final exams and my deferred exams I actually wrote something about like it is inappropriate to do this, and if discovered, will be considered academic misconduct or whatever you want, but, as I said what do you do? It's difficult.

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Aron Fazekas: There's a follow-up question here about the different versions. If students are told they're using different versions, is this a way that you can prevent, I guess, unwanted collaboration?

Kim Levere: I mean, you can put on the front cover version A versus version B, it will be listed somewhere on the actual assessment, but unless you tell them outright, it may not be super-duper obvious, so I would be very upfront about it at best.

Julie Vale: Yeah, so we're starting to get into the academic integrity piece, research has been pretty clear; it says that if you, the instructor, make clear your expectations for academic integrity and then do your best to follow through with the creation of an assessment that supports that, it's much better at preventing misconduct than in trying to design your way to something that makes it easiest to catch misconduct. So if you design to say this is designed to make it so that you don't have to commit misconduct, rather than putting all of your energy into creating 16 different versions and then not telling them which version they're each writing.

Matt Demers: And, sacrificing the quality of your assessment along the way, right? That's the thing, I've spoken with other math faculty about this too, is that you obsess over catching those students and you end up writing or developing a test or assessment that you wouldn't want to create, that isn't testing the right things, or they can't test the right things because it has to be done in this factory format that makes sure that you're, you know. So yeah I totally agree with what Julie is saying.

Julie Vale: Yeah I mean it's not a simple thing. If you are trying to design to catch or prevent in that kind of context, you could easily design 16 different assessments and not label them as midterm 1, 2, 3, through 16 and send them out to the students as appropriate. But, I mean, they're going to know right away. They're going to be like "Oh, your question used different numbers than my question," but if the process and the procedure is still the same, then they're still going to be able to collaborate and figure out how to answer that question, but the number is going to be different right? So there's it's getting into kind of a wacky zone of assessment design and integrity that a system like Crowdmark is not meant to deal with. So Crowdmark is a grading tool, it is not an assessment design, or an academic integrity tool. It does, through its structure, increase academic integrity because it removes the opportunity to commit misconduct through certain things, but it doesn't have anything in it that's designed to catch or enforce. That's not its mandate, right?

Aron Fazekas: So, I skipped over one question here, and I'm not sure - so if the person who posed it, if I get it wrong, feel free to correct me here, but the question is: can you have a formula sheet visible simultaneously?

Matt Demers: Sure. Whatever you want to give them, right? You could link them to whatever files you want; that's the thing about the flexibility. I had a formula sheet for my final exam, I provided it in Course- link. I opened it and made it available right before the exam or made it available in advance so that they knew it was on it. It's whatever you want it to be, right?

Julie Vale: Yeah, and I think that gets back to the earlier question about Respondus. So if you are using Respondus then you're restricted to whatever Respondus allows you to do or not do. If you're not using Respondus then you can do whatever the heck you want.

Matt Demers: Again, remembering that this is not an exam delivery tool, it's an exam grading tool to help process and help in the actual assessment part.

Julie Vale: Yeah, and because of the flexibility that it affords, it significantly increases the accessibility of your exam. So you will have far fewer students saying I can't write because I don't have the technology, and so this is the example that I gave in the webinar that Matt and I gave earlier. For my winter course, I did a quick survey and about 30 of the students didn't have a webcam which meant they would not have been able to use Respondus or they would have had to go to an extra expense to try to buy a webcam at a time when everybody else was trying to buy webcams, and many people were unemployed, in order to be able to write an exam with Respondus, and the attitude that the institution was taking at that time is that if a student has a technologically related issue as to why they can't write they get an automatic deferred. So that's part of why I said I'm not using Respondus and so for my exam I only ended up having one deferred exam out of 250 students, which is one of the lowest numbers I've ever had.

Matt Demers: Exactly the same here.

Kim Levere: So, if I might, I've noticed that the Q&A has taken some different directions and I know there was an earlier question about how does this work and can we demo it and whatever, so I haven't asked if I'm allowed to do this or not, but I'll throw it out there that if anybody is really interested in just doing a walk through like each of the different menus within Crowdmark and seeing a set up, start to finish, of an assessment and like a mock assessment and how does the grading work, and what does it look like. I'd be more than willing to offer that webinar in the future, if folks want to see it one end to the other and get a feel more for the functionality of things and how it looks because we haven't spent a whole lot of time within the dashboard. So I just wanted to offer that up.

Aron Fazekas: Sure, thanks Kim. We can work to get that coordinated for sure. I mean, if you want us to, or if you want to take that on yourself, I'm not sure.

Kim Levere: No, absolutely, I'm all all for other people helping me, that's good. I just want to make sure that people feel a sense of comfort when it comes to the actual functionality and how-to of things. It wasn't quite the focus of what we were getting at in this particular webinar, but I can see that there were a few people that had some interest in what does it look like, and how does that go, and maybe it would give you some comfort to see it function one end to the other, and see what it would look like, and how you would have to do things, and maybe spawn a few more questions that you maybe just don't realize you have. So anyway, Aron I guess we'll talk more. I'm going put it out there in case.

Matt Demers: Yeah, I completely identify with that. The whole idea of this, like, I want to say, software being foisted on me five years ago, with a representative coming and saying, you know, "Here's the software, we really want you to try it out," my first response is to say "Okay, well screw you," because you have a certain way of doing things. So I didn't have the advantage of having anybody to train me; I was learning it from the start and I had assessments that involved like hundreds of students and I was able to figure it out. I'd say that now it's easier to use and you have the resources that are in us, in conversations like this, in webinars, in other faculties that are using it that would be happy to help. So it might be scary and it might be like "This looks like it could be cool, but I'm not really sure," or "But, I have this big class..." and so on, but there is support and I really think it's worthwhile, personally speaking. Again, the - what do I want to say? Not steep. What's the opposite of steep? Mild learning curve? I don't know. The learning curve is mild.

Julie Vale: Gentle? Easy? Non-existent?

Matt Demers: Gentle learning curve, yeah. It's pretty easy to use, and it's very idiot-proof in some of those details and so on. I'm sure if there was a follow-up webinar on the nitty-gritty how-tos, menu navigation, and uploading and "What happens when there is an issue with uploads?" and so on. Those are questions that we would be happy to answer and we're super comfortable with because we've worked and we could talk about best practices there and what we find to make things easier and not and so on.

Julie Vale: The other thing too, if you're talking about the traditional face-to-face exam and the best practices around that, versus the kind of exams that many of us are going to be running this year, which are the more online virtual ones, the best practices are a little different. They're not that different, it's still a very straightforward structured system, but for example in the situation that many of us are in right now, you're not going have to scan and upload the exams yourself. The students will be doing that for you and so there's a slightly different workflow there and therefore there's a slightly different set of pitfalls, if you want to put it that way, and things that will make life a little easier, like as you saw the fact that some of them will upload their stuff sideways.

Matt Demers: Yeah there's one question that just bubbled up that I saw and I just want to address it now. It was: what were a couple of mistakes early on? It had to do with the scanning and stuff. The scanning itself, even when you have to do that, which as Julie said, we're not going to be talking about for the Fall, we're not going to be writing paper exams, one thing that I think all of us found was that it's much easier to collect exams in small bundles, so that if there is a scanning mistake or whatever, you only have a folder of 20 or 30 exams to go through instead of the whole exam, which was the issue the first time that I ran the exams, because you don't think of that. It's much easier to sort through and find those mistakes to rescan if they're all in tight bundles. That's one example of a simple workflow change that has impacted us for the better. I don't know, I can't think of any huge mistakes or things I wish I'd done better at the beginning.

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Kim Levere: I think Crowdmark has helped us a lot because they're constantly updating their software with new innovative ways of doing things. Originally, while there was a comment library, it didn't used to have the ability to attach marks to a comment which has been fantastic. I guess one of the things that I've used a lot is asking my TAs to grade with comments, because as Julie mentioned earlier, you can go in, and in a click, change a comment and it's associated grade in five seconds, but if somebody's doodling all over a page with a stylus you're going to have to go in and find that. So I've asked my TAs to use their stylus or their mouse or whatever to annotate as infrequently as possible only because, or at least when it doesn't have an impact on the assignment of grades, because it's so fast to make a change if there is a hiccup or a misunderstanding from a TA or something like that.

Julie Vale: Yeah, to add to that, the other thing is I was one of the people who I was like "I require a stylus to do my grading," and maybe I got halfway through my first exam and I was like "Nope. The check mark, x, question mark, and comment library is more than enough." I use the stylus if there's something I really want to circle or underline or something like that. Part of why that has become much more effective for me is because one of the things that I do is I provide a very comprehensive grading scheme and solution set for the students at the end, including some of the common errors. So when you have the combination of the very rich comment library with this feedback that you provide to the students, a lot of the commentary that you would traditionally be writing on an exam, you don't need to anymore. If you do have some really rich thing that you want to say because a quarter of the students have made this particular mistake, you can write a comment this long and stick it on a quarter of the exams, and you don't have to writing it out by hand on every single exam that you're grading, or in Dropbox, you don't have to be rewriting that comment over and over.

Aron Fazekas: All right, one last question. I think we're getting a little bit over time here, but I think it's been worthwhile, so one last question and then I'll let you go. Are you willing to share the link to the YouTube video you use to explain the process to the students?

Kim Levere: I created one to help them to understand the upload process. So it was purely for students, and I created a mock video and it said "Okay here you go, I'm going to post this on Courselink," so you'll have a copy of what you're going to get an email, they all got the email at the same time and they went through the steps within the video, but absolutely, I would be more than willing to share that that link with Aron and then maybe he can make it available.

Matt Demers: Yeah I was going to say, again, there's all sorts of different things you can do though. I had posted detailed instructions in a Courselink announcement and then made it well known ahead of the exam that I was going to do a practice exam, which I would make anyway but now I actually made it into a Crowdmark exam, where I created an opportunity for students to have practice one weekend with all of uploading and stuff in a zero stakes environment.

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Matt Demers: So students can say "Okay I understand how I can scan things with my phone and what format the files need to be in and where to drop them," and stuff to get everything to appear in the right places, and I just gave them that opportunity. I got a lot of memes people dropped like random pictures in the boxes instead of actual solutions which was kind of cute, but yeah, it was a really useful and simple way of getting them to practice interactively, so that they were comfortable about the time it was the exam day.

Julie Vale: Yeah I did something very similar to that and I actually created three little dummy questions to allow them to explore if they had to do an equation or if they had to do a figure. I was like: "Draw a happy face," and then I was like "Now make your happy face say 'hi'," so that they could explore with figures, writing, and equations just to show them that this could all be done. Not every student took the opportunity to do it but I know that for some of the students suffering with anxiety in my classes, it was really beneficial for them to have that opportunity to interact directly with the software before they were doing it in a high stakes environment.

Kim Levere: As a result of that, I had maybe two questions in a class of 600 and something about like "How do I do this?" It was like ridiculously smooth. Really, really good. So yeah, remind me if I forget, Aron, but I'll send you that link. I'll have to change its permissions first so that everybody can see it.

Aron Fazekas: Thanks. We'll get that sent out when we send out the link to this webinar to everyone. So I think with that, we'll end. There are no more questions actually, so I think it's a good time to finish. So thanks Kim, Julie, Matt. I think that was great, and thanks also to all the attendees for for staying with us to the end.

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