Harmonize Survey Report

Results of UW's 2021 Pilot - Summer and Autumn Quarter

In summer and autumn quarters combined, 37 instructors from the UW's three campuses utilized Harmonize in 56 courses. Instructors and students were invited to provide feedback on their experiences with Harmonize via an end-of-quarter survey. In total, 16 instructors responded to the survey, as well as 181 students (from 15 different courses).

Overall Impression of Harmonize is Mixed

All the instructors who responded to the survey had experience with other discussion boards before using Harmonize. All 16 reported using Canvas discussion previously; one quarter had used Piazza. Two reported experience with Ed Discussion. Other discussion tools mentioned included Slack, Discord, Moodle, Blackboard, MS Teams, and Campuswire.

Instructors' ratings of Harmonize varied; 56% rated it "good" (6) or "great" (3) as an educational tool and the remainder rated it as "fair." Asked to elaborate on their ratings, instructors described what they appreciated in the tool and what they found problematic, summarized in the table below.

Liked	Did not like
- User-friendly, aesthetically pleasing interface (4) - Milestones, autograding, and participation analytics (4) - Integration with Canvas (3) - Ability to post multiple media - Card/list view	- Less accessible/clumsy interface - Milestones/due dates integration with Canvas - Problems with video playback - Lack of flexibility in organizing questions/discussions

Comments from instructors provide additional insight into their experiences with the tool:

It's easy to engage with students as an instructor, as part of the discussions, and students really liked the tool, also.

Although I don't love the dark interface, everything else about Harmonize is a big improvement over the threaded discussion in Canvas. My favorite aspects of Harmonize: Multiple milestones; great integration with SpeedGrader; better support for posting media; choice of card view or list view.

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Harmonize has improved since the last time I used it, but as a tool working within Canvas the integration leaves something to be desired. Graded and ungraded Harmonize discussions are dispersed, the notifications system is still confusing, and I cannot understand why it isn't easier to see all posts by a student in a course in a given quarter without [creating] a graded discussion.

My single interest was in the video annotation feature. While in theory this would be an ideal instructional tool in my media production courses, at the moment there are a number of issues that make the tool difficult and time consuming to use.

Overall, I find it cumbersome to use, although it merges well with Canvas. I wish there was more flexibility in setting up discussion channels and generally organizing material.

The tool looks good and the milestones are wonderful. The autograding feature can be very helpful. However, I quit using the tool three weeks into the quarter when it did not register students who had been assigned in groups. …A fix came through two weeks later but to minimize disruptions to students, we stopped using Harmonize.

Among student respondents, almost all (94%) reported using Canvas discussion previously and 40% had experience with Piazza. Another 29% had used Ed Discussion, and a small portion (6%) had used no discussion tools prior to using Harmonize. Thirteen students (7%) also reported using other tools for discussion, including Microsoft Teams, Slack, Discord, Sakai, and WAMAP.

Students' ratings of Harmonize varied even more broadly than instructors. Just over half of student respondents rated the tool "good" (38%) or "great" (15%) while another 40% rated it "fair" and the remainder, "poor." Students' elaborations on their ratings often suggested that they didn't have a strong preference for a discussion tool, or for some, that any improvements Harmonize might offer over Canvas discussion did not justify using an additional tool. Students' likes and dislikes are summarized below.

Liked	Did not like
● Convenient, very good functionality (23) ● Easy to use and navigate (16) ● Due date reminders, progress indicator (11) ● Good organization (9) ● Viewing images in card view (7) ● Reaction options (emoticons) (5)	● Poor integration with Canvas (16) ● Hard to navigate/poor UI (15) ● Having to use a tool outside of Canvas (7) ● Loads slowly/problems loading (6) ● Buggy (5) ● Can't see all posts at once (5)

Students who rated Harmonize more favorably tended to comment on the functionality of the tool, while those who rated it less favorably mentioned difficulties with how the tool integrated with Canvas, or how it performed. Students seemed to have different opinions about how easy it

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was to navigate, and it is unclear if this was related in part to how instructors set up discussion or used the tool in their courses. Some students' frustrations with either the card view or the list view seemed to suggest that they were unaware that they could toggle between these views.

I loved that it was so organized and showed notifications for post responses, how close to completing an assignment you are, and functions such as the react feature which are not on Canvas.

I like how it has more functionality than a canvas discussion, allowing you to share your notes and reply to a reply, build threads and have the subject and topic mentioned on top. It is a great tool.

The interface was nice and easy to use. It was simple to post and answer questions. I liked that there were profile pictures so it felt more personal than the Canvas discussion board.

I like that instructions, posts, and comments are more readable compared to canvas discussion posts. It is also easier to tell whether you met requirements (e.g. making a certain number of posts or comments) on Harmonize since on Canvas you had to manually remember how many times you posted or commented.

It was easy for me to interact with others, and see who interacted with me. Being able to attach text, images, and more was useful as well, as it allowed for a variety of engagement and discussion within students in the class!

It's not not well integrated into canvas and sometimes I would forget something because the reminder wasn't with the rest of my canvas notifications

UI is not as friendly, takes some time to learn how to navigate the platform, loads slower than other platforms

I don't find Harmonize's interface efficient-- it is difficult to easily view peers' discussion as it requires you to select and open cards to view them.

It's not a bad system, but it does seem a little clunky to use and doesn't in my opinion add value over the Canvas discussion system by default. The purported advantage is that you can make group posts, but this is only by tagging other users - they cannot be collaboratively edited.

It works but I don't understand why we can't just use Canvas discussions since it is already built into Canvas as a function. It is a hassle to launch the external tool. Plus Harmonize's user interface is confusing to understand.

Discussion Features Used Broadly

The summer and autumn instances of Hamonize used by pilot participants included three components: discussion, Q&A (added summer 2021), and chat. All 16 of the survey respondents reported using discussion, seven used the Q&A component, and four used chat.

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As shown in the chart below, the features used by the greatest number of instructors were those associated with graded discussions (grading student posts and assigning due dates) and providing feedback to students (adding reactions to posts or endorsing questions in Q&A). Just under half of instructor respondents also read the reports of student activity in the tool. While the ability to annotate images or video, record audio or video directly in the tool, and assign student facilitators for discussion are fairly unique to Harmonize, few respondents reported using these features.
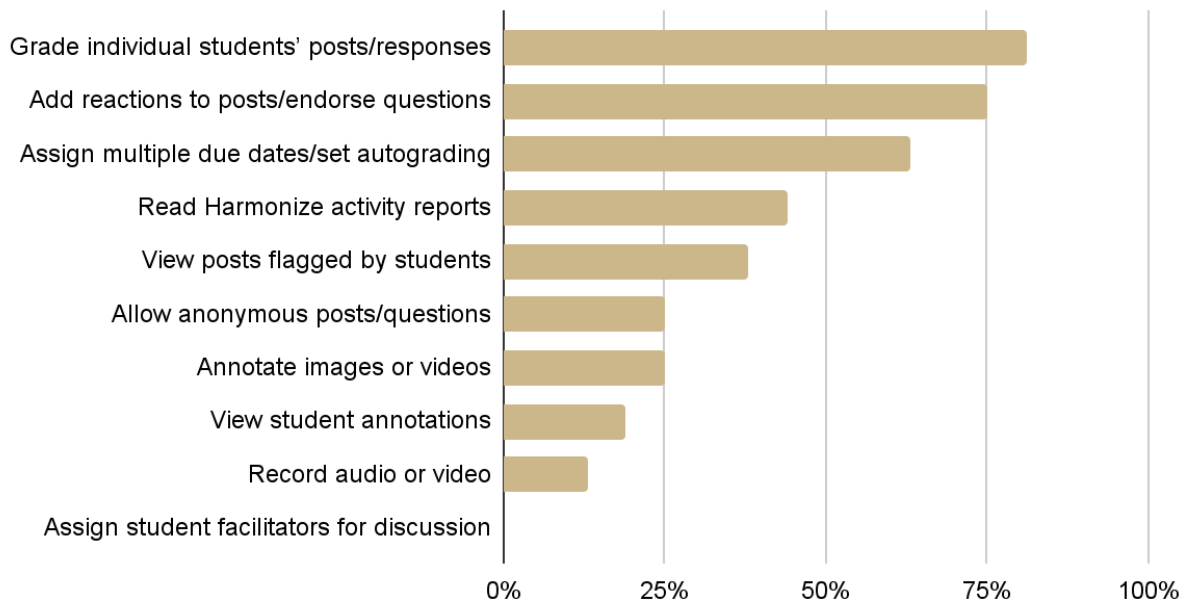

Figure 1. Instructor use of selected Harmonize features

Almost all student respondents (96%) reported using the discussion component of Harmonize in their courses, while one-third (32%) used Q&A and 16% reported using chat. Top among the features students reported using were the ability to add reactions to discussion posts or endorse questions in Q&A and the ability to tag instructors or classmates in posts. Remaining features were selected by significantly fewer student respondents, though almost one quarter of student respondents (22%) reported recording audio or video comments — more than instructors.
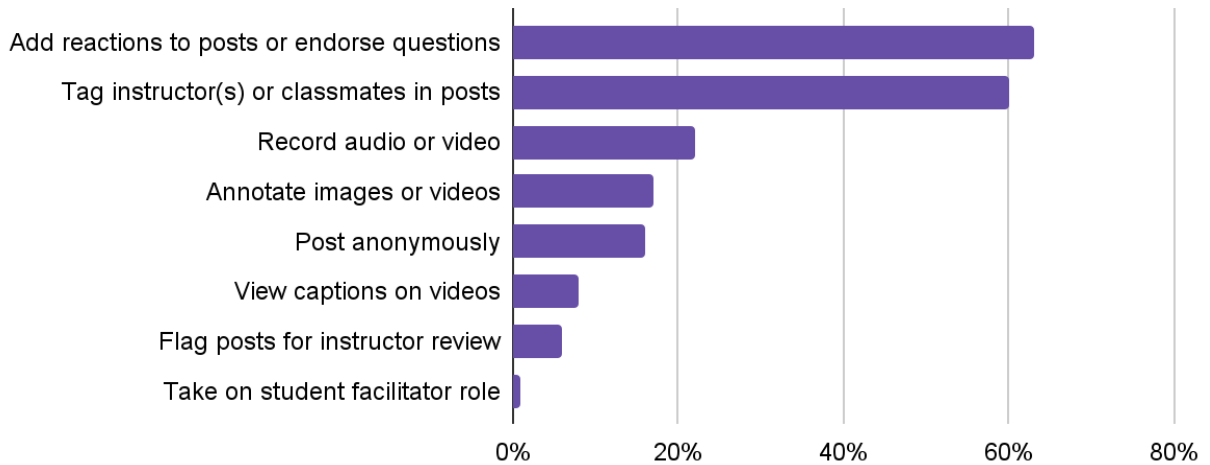
Figure 2. Student use of selected Harmonize features

Types of Media Posted

When asked about the types of media they posted to Harmonize, the top selection for both instructors and students was images. A considerably greater percentage of instructors than students reported posting all other types of media. This could be due to instructors posting media content that students were expected to consume and then respond to, without requiring students to post similar content.
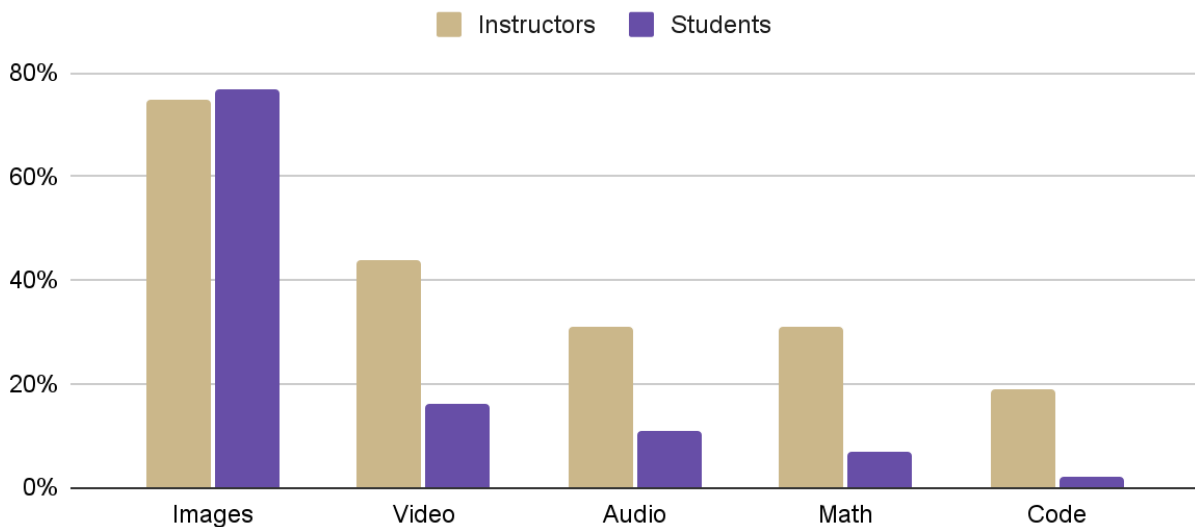

Figure 3. Types of media posted by instructors and students

Harmonize Stands Out for Evaluating Student Participation

When asked how well Harmonize helped them accomplish relevant tasks/activities in comparison to other discussion tools, most instructors rated Harmonize "about the same as other discussion tools" for almost every task. However, over 75% of instructor respondents rated Harmonize "better than other discussion tools" for evaluating student participation in discussions. In addition, 40% of instructors rated Harmonize better for managing or facilitating discussion/Q&A, though responses were nearly evenly split in regard to this activity.
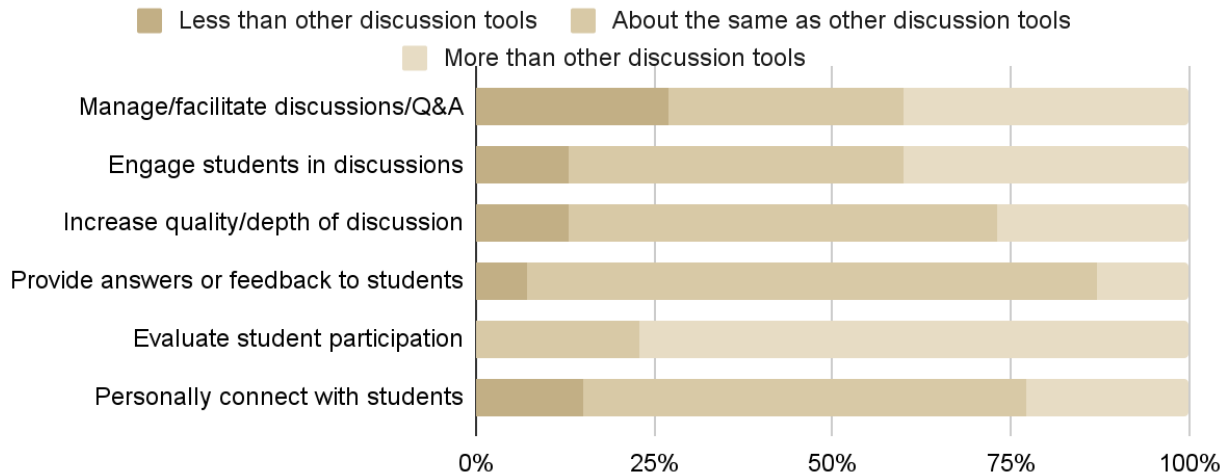

Figure 4. Instructors' comparison ratings of Harmonize

When students were asked how well Harmonize helped them accomplish several tasks in comparison to tools they had used previously, the largest proportion rated Harmonize "about the same as other discussion tools" for every task. When comparing Harmonize to other tools in regard to navigating discussion, students were almost evenly split in their ratings among "less than," "about the same as," and "better than other discussion tools."
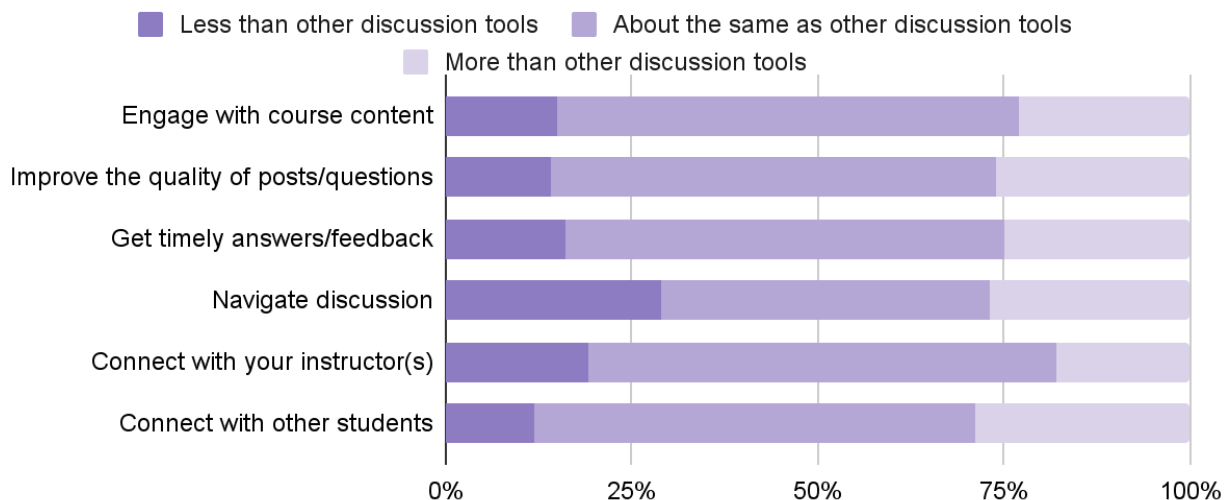
Figure 5. Students' comparison ratings of Harmonize

Harmonize is Easier for Students to Use than Instructors

Asked to rate the overall ease/difficulty of using Harmonize as an instructor, the greatest percentage of instructors (43%) indicated that Harmonize was "difficult" to use, and another 38% selected "neutral." Only three instructors rated Harmonize as "easy" (2) or "very easy" to use. Anyone who rated the tool "neutral," "difficult," or "very difficult" was asked to elaborate on the difficulty. Instructors provided additional insight in their comments, which suggest that aspects of the interface or usability were non-intuitive. Even though some issues in the comments had solutions (e.g., it is unclear whether the person writing about the limited visibility window in Canvas was aware of the option to view an image or video full-screen), this is further evidence of difficulties experienced by users.

In some ways, Harmonize is easy to work with, but in other ways it's not. It's not that easy to navigate from the home Canvas page or to get notifications when students post course Q&A questions.

Converting Canvas discussions to Harmonize discussions is time-consuming

Figuring out how to accomplish the fairly rudimentary things I wanted to accomplish with it.

The time lag of features with video annotation, and the limited visibility window in Canvas.

Students rated Harmonize slightly better on ease of use. A combined 45% of students felt that Harmonize was "easy" (36%) or "very easy" to use. An additional 41% gave it a "neutral" rating, and 14% described Harmonize as "difficult" to use. As with instructors, students who rated the

tool "neutral," "difficult," or "very difficult" were asked to describe what was difficult. Navigation appeared repeatedly in student comments, as well as problems with the integration with Canvas (e.g. understanding milestones in Harmonize vs. due dates in Canvas). Some students reported challenges using Harmonize on mobile devices.

> *On other discussion sites, I like that you can see all the posts and comments at once. On Harmonize, you have to click on each post to view it and it was a bit slow when loading every time.*
>
> *Sometimes it can be hard to navigate to posts and find friends' posts that you are looking for. Could not find the discussion board the first few times i used it.*
>
> *The navigation between posts was pretty difficult.*
>
> *It was difficult to navigate the main page of harmonize aside from assignments because there were no back arrows so it was always a risk of losing your work.*
>
> *With all the different features, it wasn't user friendly on commenting and then reverting back to the main page.*
>
> *The bugs and confusion over multiple due dates (time a post was open vs. when it was supposed to be submitted)*
>
> *You're only able to use it conveniently through a desktop. Tried it on my iPad a couple times and the tabs and navigating through the software was difficult to do.*
>
> *I sometimes got random error messages. This was more likely to happen in mobile*
>
> *It's always challenging getting to know a new tool. Harmonize isn't difficult, but there's friction/pain in learning something new, especially when it's coupled in a class with a familiar tool (Canvas), yet the two aren't well-synced (Canvas cal showing initial due-by dates in this case)*

Need for support

Nearly two-thirds of students (63%) but only a quarter of instructors reported that they did not need support with Harmonize. Conversely, two-thirds of instructor respondents (11 of 16, 69%) and an additional 31% of students reported that they sought support and were able to get it when they needed it, while one instructor and ten students said that they were unable to get support.

Most instructors seemed to feel that Harmonize was easy for their students to use. Asked to rate the amount of tech support their students required with Harmonize, nearly half of instructors (47%) reported that their students "did not need support," a third selected "very manageable — required little support," and two (14%) selected "manageable — required some support." Only one instructor indicated that the burden was "unmanageble — [students] required a lot of support."

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Future Use

Nearly two-thirds of instructors (63%) reported that they were either "likely" (6, 38%) or "very likely" (4, 25%) to use Harmonize for another course. When asked if there was anything they wanted to do with Harmonize but found they were unable to do, instructors indicated that they wanted the following capabilities:

- An ability to view all posts created by students for both ungraded and graded discussions
- Better integration with Canvas grading (one instructor wanted the first milestone in Harmonize to appear as the due date in Canvas, rather than the final milestone)
- For Q&A, an ability to endorse posts with "good question" and "good answer" as in Piazza
- Ability to take a screenshot and paste the image to a textbox (currently have to save file locally, then upload)
- Improved navigation to move forward/backward from every destination
- Ability to search for content across discussions and components
- More flexibility in organizing questions (unclear if this is in regard to Q&A or discussion)
- Ability to disable Harmonize during exams
- Ability to organize group "channels" (as in Slack)
- Ability to direct a post to a particular student group

Students were asked if they felt it would be beneficial for all of their instructors to use Harmonize. Just over a third of student respondents (38%) said "yes" and half said "no." The remaining students selected "other," and indicated it depended on the course and the structure of the class, whether "Canvas integration could be improved," and whether or not the instructor made use of features in Harmonize to upload a variety of media.

Conclusion

Harmonize is a good tool for engaging students in discussion, particularly for instructors who want to evaluate student participation. This use case centers on instructors setting up graded discussion boards as assignments in Canvas and using the milestones feature in Harmonize to set dates by which students need to post to the board and/or comment on other students' posts. Students then receive reminders for these activities and can track their progress toward completion. For graded discussions, instructors can also use Speedgrader in Canvas to view all of a student's posts/comments and evaluate/provide feedback on that work.

Instructors who want to use Harmonize for both graded and ungraded discussions must take care to link to discussions in modules or let students know that graded boards are found under "assignments" and ungraded boards under "discussions"; the different locations can lead to confusion. Students will not receive reminders or progress tracking for ungraded discussions or for graded discussions in which milestones are not used.

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Harmonize added several new features to its discussion tool in summer 2021 that increased its functionality but may have also contributed to making the tool less user-friendly and complicating its use for instructors in particular. In addition, several instructors encountered bugs with navigation, using the tool on mobile apps, and using the groups functionality added in autumn 2021 with the upgrade to LTI 1.3. The latter was resolved several weeks into the quarter.

While in-tool tips and tutorials and online support for Harmonize is good, documentation for the tool is primarily in the form of short videos and very brief introductory text; instructors cannot quickly scan written documentation to find answers to questions about how to set up specific functionality. In addition, some important limitations of features are communicated in the videos only (i.e., annotation of images and videos is possible only by the student who posted and the instructor, not classmates).

Overall, results from the pilot suggest that Harmonize is a good tool for instructors whose use case(s) match those the developer had in mind and who invest the time to learn how to use the tool as designed. However, for instructors with use cases not supported by the tool, Harmonize might prove frustrating, and even those who take time to learn the tool may find several processes cumbersome and unintuitive.

Recommendation

At this time, we do not recommend central adoption of Harmonize; we may want to revisit the tool in a couple of years to see if some of the shortcomings noted by pilot participants have been resolved.

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