

Diagnostics by Design: AI in Healthcare

Event Category: Recognition.....

Eligible Divisions: Secondary & Postsecondary / Collegiate	Round One: Problem + Trailer, pre-judged, virtually	Digital Upload: YES, trailer
Team Event: 2-6 competitors per team	Round Two: Presentation (5 minutes)	Presentation Materials: Device (battery operated) to show solution & Notecards (optional)



New for 2026-2027

Diagnostics by Design: AI in Healthcare is a new recognition event for 26-27. This event will be ILC Only for 2026-2027.

Texas HOSA

This event will only be recognized at ILC

Event Summary

Diagnostic by Design: AI in Healthcare allows members to analyze and develop Artificial Intelligence and Machine Learning for the healthcare setting. Members will work as a team to apply their knowledge to create a functional solution using Artificial Intelligence or Machine Learning. This competitive event consists of two rounds, and each team consists of 2 – 6 people. Team members will address the provided topic for the development of their functional solution. Round One will consist of a video “trailer” produced by the team to convince a panel of judges to view their Round Two full presentation. The highest-scoring teams will advance to Round Two. In Round Two, teams will have five (5) minutes to present their functional solution to a panel of judges. This event aims to inspire members to be proactive future health professionals and utilize higher-order thinking to solve complex challenges.

2026-2027 Event Topic

Mental Health App for Peers

Sponsorship

HOSA-Future Health Professionals appreciates the sponsorship of this event by Pearson.



General Event Information

General Rules	Competitors must be familiar with and adhere to the General Rules and Regulations .
Dress Code	Proper business attire or official HOSA uniform. Bonus points will be awarded for proper dress . All team members must be properly dressed to receive bonus points.
Competitors Must Provide	• Photo ID • Copy of the resource (optional)

	• ONE team member uploads the 'trailer' video to the HOSA Digital Upload System by May 15 for ILC. • Presenters must bring their own equipment (battery operated) HOSA Conference Staff will provide equipment and supplies listed in Appendix I.
Official References	The reference below is used in the development of the event and current / hypothetical AI / ML situation. • Burke, Lillian and Barbara Weill <i>Information Technology and Artificial Intelligence for the Health Professions</i>. Pearson, Latest edition. An additional optional resource is: • CCS Generative AI Foundations Certification :: Critical Career Skills:: Certiport

ROUND ONE- Trailer (Pre-judged virtually)

Trailer	1. Team members will create a "trailer video" providing an overview of their functional solution. 2. Round One will give the team two (2) minutes in video trailer format to convince the judges that they want to see the team's full presentation. 3. The video trailer must be uploaded by May 15th. 4. The top Secondary and Postsecondary/Collegiate teams from Round One will advance to Round Two, the full presentation for judges. The number of advancing teams will be determined by criteria met in Round One and space available for Round Two.
REQUIRED Digital Upload	5. One member of the team MUST upload the following items to the HOSA Digital Upload System by May 15 • Link to the team's round 1 video trailer <i>Note: if judges cannot access the video link, they will NOT score the submission.</i> 6. May 15 at midnight EST is the final deadline, and there will be NO EXCEPTIONS for receipt of the required materials after the deadline. We STRONGLY suggest not waiting until the last minute to upload online to avoid user-challenges with the system. 7. Detailed instructions for uploading materials can be found at: https://hosa.org/competitive-event-digital-uploads/ 8. For ILC, the digital materials uploaded by May 15 will be PRE-JUDGED. Competitors who do not upload materials are NOT eligible for the Round Two presentation portion of competition and will NOT be given a competition appointment time at ILC. All digital content uploaded as of May 15 is what will be used for pre-judging at ILC. 9. Events featuring a required display time at the International Leadership Conference (ILC) are pre-judged in early June. Round Two finalists are determined immediately following this initial evaluation. Results are not released until after the Required Display Time at ILC. Because some teams may not advance, their participation at ILC may be limited to the required display time. While organizers make every effort to advance as many teams per division as possible, final decisions are based on Round One criteria and available space for Round Two. Judges' decisions are final.

Required Project Display Time at ILC

1. All teams at the International Leadership Conference are required to attend the HOSA Project Display Time for this event, as scheduled per the conference program. Failure to attend the Project Display Time will result in a 15-point deduction from Round Two. 2. Teams will bring a laptop, iPad, or other personal electronic device to showcase their Round One video during the display time.
--

3. All teams will have fifteen (15) minutes to set up their personal electronic device before the display time begins. Only registered competitors will be allowed to set up during this time.
4. Teams will NOT have access to electricity. Internet connection is NOT provided but is allowed during display time if the team provides it themselves. No equipment/supplies (except tables) will be provided for this event. The team is responsible for ensuring that all equipment is in working condition.

ROUND TWO- Presentation to Judges

1. The top teams from Round One will advance to Round Two, where they will present their solution exhibit. The number of advancing teams will be determined by criteria met in Round One, space and time available for Round Two. Round Two finalists will be announced on-site at ILC per the conference agenda.
2. Teams must bring their physical exhibit to the ILC competition to reference during the Round Two presentations and to use during the required exhibit time.
3. Round Two qualifying teams will report to the scheduled room at their team's assigned appointment time to present a five (5) minute prepared oral presentation to the judges.
4. Use of index card notes during the presentation is optional. Electronic notecards (on a tablet, smartphone, laptop, etc.) are allowed, but will not be shown to judges.
5. During the five (5) minute prepared presentation, time cards will be shown with one (1) minute remaining, and time will be called at the end of the five (5) minutes
6. All team members must take an active role in the presentation.
7. Each team that advances to the presentation round will be judged on their ability to communicate information to the judges about their solution. The presentation will:
 - a. provide a clear understanding of the topic
 - b. share the impact of the solution
 - c. Include risk mitigation and methods to ensure patient privacy

Final Scoring

1. Scores from Round One will be added to Round Two to determine the final results.
2. In the event of a tie, a tiebreaker will be determined by the areas on the rating sheet section(s) with the highest point value in descending order.

Recognition

1. Submissions for teams that earn a score of 100 points or above on the presentation will be recognized at the Recognition Reception and awarded a certificate for their participation.
2. Those teams attending the International Leadership Conference and earning recognition will walk across the stage during the identified recognition reception to receive a certificate. Gold, silver, and bronze medals are not awarded for this event at the international level.

Future Opportunities

The HOSA Scholarship program has funding available for HOSA members who have an interest in various health careers! The application process begins January 1, 2027, and can be found here: <https://hosa.org/scholarships/>.

Graduating from high school or completing your postsecondary/collegiate program does not mean your HOSA journey has to end. As a HOSA member, you are eligible to become a HOSA Lifetime Alumni Member- a free and valuable opportunity to remain connected, give back, and help to shape the future of the organization. Learn more and sign up at hosa.org/alumni.

Diagnostics by Design: AI in Healthcare

Round One Pre-Judged Video Trailer

Team #: _____ **Division:** _____ **Judge's Signature:** _____

Link provided for video trailer. YES ____ NO ____

If judges cannot access the video link, judges are not to score the submission.

A. Video Overview	Excellent 10 points	Good 8 points	Average 6 points	Fair 4 points	Poor 0 points	JUDGE SCORE
1. Length	Video is no longer than 2 minutes.	N/A	N/A	N/A	Video exceeded 2 minutes.	
2. Quality of video- Focus, Audio, Editing	The video quality was excellent. Images are sharp. Sound and editing added to the value of the video. Transitions are clear and help the message stand out.	The video quality was good. Some blurriness or difficulty hearing was noted. Transitions between scenes help narrate the message.	The video quality was average. Some issues with lighting, sound, or editing was noted. Transitions are inconsistent or do not add additional value.	The quality of the video was basic. Audio levels were too loud or too soft. There were several blurry images or lighting was too bright or too dark. Editing was clunky or inappropriate.	Quality of the video was poor. Often out of focus, background noises evident and led to poor audio, scenes were distracting. Editing was not apparent.	
3. Appropriate to the Topic	The topic is clearly revealed and well-covered in the video.	The topic is addressed and appropriate for the video.	The topic is apparent though not fully covered in the video.	The topic is not clearly communicated throughout the video.	The topic is not covered in the video.	
B. Video Content	Excellent 15 points	Good 12 points	Average 9 points	Fair 6 points	Poor 0 points	JUDGE SCORE
1. Effectiveness	The video did an extraordinary job capturing the attention of the audience and provided a clear message regarding the identified issue.	The video did a good job capturing the attention of the audience. The message stood out and evoked emotion. It was interesting and thoughtful regarding the identified issue.	The video captured the attention of the audience. The video could have done more to evoke emotion and to stand out. The importance of the issue was not fully developed.	The video needed more attention to detail. It could have done a better job connecting to the audience and delivering the importance of the identified issue.	The video was not effective. It did not capture the attention of the audience or deliver the importance of the identified issue.	
2. Impact	The video was highly impactful and encourages a "call to action" in a positive manner in regards to the identified issue.	The video was good but the message could have been more specific impact and to inspire change regarding the identified issue.	The video was informative but did not impact the audience to action.	The video did not clearly communicate the impact of the issue or inspire the audience to action.	Video was not impactful and did not elicit any emotion from the viewer.	
3. Creativity and Originality	The video is extremely creative, clever and original. Excellent!	The video is good. Creative messaging and original content were displayed.	The video provided an average amount of creativity and originality.	The creativity in the video was basic. Little originality was included.	No original thoughts or creative concepts were used in this video.	

4. Video leaves judges wanting to know more	When are you presenting Round 2!? The judge is waiting on the edge of their seat to see your next work!	Great job! The judge wants to watch your full presentation.	Judge liked this video but may or may not be interested in seeing more.	This video was okay, but the judge probably won't go looking for any more.	Judge has seen enough.	
Subtotal Points for Pre-Judging AI-HC Video (90):						

Diagnostics by Design: AI in Healthcare Round Two Presentation Rubric						
Team #: _____ Division: _____SS, _____PS/C Judge's Signature: _____						
A. Presentation Content	EXCELLENT 10 points	GOOD 8 points	AVERAGE 6 points	FAIR 4 points	POOR 0 points	JUDGE SCORE
1. Importance of information presented	The interpretation of the identified issue was presented in a highly-effective and compelling manner that reinforced the information gathered on the issue.	The interpretation of the issue was well-received by the audience.	The information presented was done in a way that somewhat connected to the issue.	The information presented provided a slight connection to the identified issue.	Information was not presented in a way that made sense to the audience or did not cover the identified issue.	
2. Overall Understanding of issue/topic	The identified issue is clearly revealed and well-structured into the presentation. The team clearly and accurately shares the complexity of the identified issue.	The identified issue is stated and appropriate for presentation. Understanding of the identified issue is lacking small details.	The understanding of the identified issue is average and not fully threaded into the presentation.	The identified issue is not clearly communicated throughout the presentation.	No evidence of understanding of the identified issue.	
3. Effectiveness/ Impact	The presentation was extremely effective and clearly resolved the identified issue.	The presentation was effective and resolved the identified issue.	The presentation was somewhat effective and may or may not have addressed the identified issue.	The presentation lacked effectiveness in most key areas and only sparingly addressed the identified issue.	The presentation was not effective and did not address the identified issue.	
4. Captivating	The team actively engaged the audience with a well-executed presentation and maintained the attention of the audience throughout.	The team used techniques to attempt to retain the interest of the audience.	The team attempted to engage audience interest, but the effort was incomplete, disorganized, or was negated by poor delivery.	The team did not use any techniques to engage audience interest, or the attempt was made in an incoherent and disorganized fashion.	The team did not capture the attention of the audience whatsoever.	
5. Distinction	The team provided a highly creative, original, and imaginative presentation that was highly innovative. It stood out above others!	The presentation was unique and offered a fresh approach to the topic; however it was missing the "wow" factor.	The presentation was adequately imaginative. Would like to see more creativity and innovation in the approach to the presentation.	The presentation was unoriginal and little imagination was included in the presentation.	No evidence of imagination or creativity was used in the presentation.	
6. Research / Resources	There is evidence of significant and reliable research in the information provided in the presentation.	There is evidence of some researched information in the presentation.	The presentation could benefit from increased researched based information.	There is minimal evidence incorporated into the presentation.	There is no evidence of research in the presentation.	
A. Presentation Content	EXCELLENT 15 points	GOOD 12 points	AVERAGE 9 points	FAIR 6 points	POOR 0 points	JUDGE SCORE

7. Risk Mitigation: How will algorithmic bias be prevented?	There is evidence of significant planning in the prevention of algorithmic bias in the presentation.	N/A	There is evidence of some planning in the prevention of algorithmic bias in the presentation. More information would be needed.	N/A	There is no evidence of planning in the prevention of algorithmic bias in the presentation.	
8. What methods will be used to protect patient data privacy?	Methods to protect patient data privacy were identified and defined in the presentation.	N/A	Minimal methods to protect patient data privacy were included in the presentation.	N/A	Methods to protect patient data were not included in the presentation.	
B. Presentation Organization	EXCELLENT 5 points	GOOD 4 points	AVERAGE 3 points	FAIR 2 points	POOR 0 points	JUDGE SCORE
1. Flow, Logic, and Transitions	There is evidence of practice and consistency of presentation flow and transitions.	There is evidence of practice and some consistency in presentation flow and transitions.	The presentation could benefit from a more consistent flow and transitions.	More practice is needed to achieve an authentic flow in the presentation.	The entire presentation is delivered with a lack of attention to flow and transitions.	
B. Presentation Organization	EXCELLENT 5 points	GOOD 4 points	AVERAGE 3 points	FAIR 2 points	POOR 0 points	JUDGE SCORE
2. Opening	The team clearly establishes the occasion and purpose of the presentation, grabs the audience's attention and makes the audience want to listen.	The team introduced the presentation adequately, including an attention getter and established the occasion and purpose of the presentation.	The team introduced the topic but did not clearly establish the occasion and/or purpose of the speech. Weak attention getter.	The team failed to introduce the presentation. Or, the introduction was not useful in indicating what the presentation was about.	The team did not provide any kind of opening statement or action.	
3. Closing	The team prepares the audience for ending and ends memorably. They drew the presentation to a close with an effective memorable statement.	The team adequately concluded the presentation and ended with a closing statement. Clear ending but ends with little impact.	The team concluded the presentation in a disorganized fashion and/or did not have a closing statement.	Audience has no idea the conclusion is coming. Team's message was unclear.	The team ended the presentation abruptly without an effective conclusion.	
C. Presentation Delivery	EXCELLENT 5 points	GOOD 4 points	AVERAGE 3 points	FAIR 2 points	POOR 0 points	JUDGE SCORE
1. Voice Pitch, tempo, volume, quality	The team's voice was loud enough to hear. The team varied rate & volume to enhance the speech. Appropriate pausing was employed.	The team spoke loudly and clearly enough to be understood. The competitors varied rate OR volume to enhance the speech. Pauses were attempted.	The team could be heard most of the time. The competitors attempted to use some variety in vocal quality, but not always successfully.	The team's voice is low. Judges have difficulty hearing the presentation.	Judge had difficulty hearing and/or understanding much of the speech due to low volume. Little variety in rate or volume.	
2. Stage Presence Poise, posture, eye contact, and enthusiasm	Movements & gestures were purposeful and enhanced the delivery of the speech and did not distract. Body language reflects comfort interacting with audience. Facial expressions and body language consistently generated a strong interest and enthusiasm for the topic.	The team maintained adequate posture and non-distracting movement during the speech. Some gestures were used. Facial expressions and body language sometimes generated an interest and enthusiasm for the topic.	Stiff or unnatural use of nonverbal behaviors. Body language reflects some discomfort interacting with audience. Limited use of gestures to reinforce verbal message. Facial expressions and body language are used to try to generate enthusiasm but seem somewhat forced.	The team's posture, body language, and facial expressions indicated a lack of enthusiasm for the topic. Movements were distracting.	No attempt was made to use body movement or gestures to enhance the message. No interest or enthusiasm for the topic came through in presentation.	

3. Diction, Pronunciation and Grammar Diction: choice of words, especially with regard to correctness, clearness, and effectiveness. Pronunciation: Act or manner of uttering officially.	Delivery emphasizes and enhances message. Clear enunciation and pronunciation. No vocal fillers (ex: "ahs," "uh/ums," or "you-knows"). Tone heightened interest and complemented the verbal message.	Delivery helps to enhance message. Clear enunciation and pronunciation. Minimal vocal fillers (ex: "ahs," "uh/ums," or "you-knows"). Tone complemented the verbal message	Delivery adequate. Enunciation and pronunciation suitable. Noticeable verbal fillers (ex: "ahs," "uh/ums," or "you-knows") present. Tone seemed inconsistent at times.	Delivery quality minimal. Regular verbal fillers (ex: "ahs," "uh/ums," or "you-knows") present. Delivery problems cause disruption to message.	Many distracting errors in pronunciation and/or articulation. Monotone or inappropriate variation of vocal characteristics. Inconsistent with verbal message.	
4. Team Participation	Excellent example of shared collaboration in the presentation of the project. Each team member spoke and carried equal parts of the project presentation.	Most the team was actively engaged in the presentation	The team worked together relatively well. Some of the team members had little participation.	The team did not work effectively together.	One team member dominated the presentation.	
Total Points for Presentation (125)						