IHMC Board of Directors Meeting Minutes
March 5, 2013

Roll Call	Chair Glenn Sturm
Chair's Greetings	Chair Glenn Sturm
Welcome to New Board Members	Chair Glenn Sturm

Action Items

1.	Approval of September 10, 2012 Minutes	Chair Glenn Sturm
2.	Fundraising Committee Update	Chair Glenn Sturm
3.	External Audit	Director Dick Baker
4.	Expansion Discussion	Chair Glenn Sturm
5.	Additions to Board Committees and Chairs	Chair Glenn Sturm

Chief Executive Officer's Report

1.	Research Update	Dr. Ken Ford
2.	Federal Legislative Update	Dr. Ken Ford
3.	Ocala Update	Dr. Row Rogacki
4.	Research Demonstrations	Dr. Ken Ford

Other Items
Adjournment

IHMC Chair Glenn Sturm called the meeting to order at 8:30 am CST. Directors in attendance included: Lewis Bear, Bill Dalton, Ron Ewers, Eugene Franklin, Chris Hart, Hal Hudson, Eric Nickelsen, Dick Baker, Jim Reeves, Martha Saunders, Gordon Sprague, and Glenn Sturm. Also in attendance were Ken Ford, Sharon Heise, Row Rogacki, Pam Dana, Alan Ordway, Ronnie Armstrong, and Julie Sheppard.

Chair Sturm welcomed everyone attending today in person and thanked the Board members who dialed in this morning. He announced that a quorum of the Board was present to conduct business mentioning that it was exciting to have so many new faces at this meeting. He commented on the excellent dinner the previous evening at the Hilton.

Chair Sturm then welcomed Alain Rappaport, Lewis Bear and Martha Saunders to their first IHMC Board meeting stating that the Board of Directors is delighted to have all of them on the IHMC Board an look forward to getting better acquainted. Chair Sturm added that the Directors would miss the excellent service of General Horner and Hal White but are excited about welcoming the new Board members.

Chair Sturm then congratulated Dr. Ford for being named to a select group of innovators as a 2012 Charter Fellow on February 22nd in Tampa at the National Academy of Inventors meeting. He mentioned that among the Charter class of 98 inductees there were only two computer scientists, the other being Barbara Liskov from MIT and no other Artificial Intelligence Researchers, but that the group as a whole represents 54 top

research universities and research institutes across the country, who together hold more than 3,200 U.S. patents. Chair Sturm described the other inductees including eight Nobel laureates, two Fellows of the Royal Society, 12 presidents of research universities and non-profit research institutes, 50 members of the National Academies (National Academy of Sciences, National Academy of Engineering, Institute of Medicine), 11 inductees of the National Inventors Hall of Fame, three recipients of the National Medal of Technology and Innovation, four recipients of the National Medal of Science, and 29 Fellows of the American Academy of Arts and Sciences Fellows, among other major awards and distinctions. He concluded by noting that the NAI cited Dr. Ford and the other inductees for demonstrating "a highly prolific spirit of innovation in creating or facilitating outstanding inventions that have made a tangible impact on quality of life, economic development, and the welfare of society."

Chair Sturm then reminded the Board that as a matter of housekeeping, the next IHMC meeting is a teleconference meeting scheduled for 2:00 Central, 3:00 Eastern on April 15, 2013 and the following meeting would be an in person meeting scheduled for June 23 and 24 in Pensacola with Sunday night June 23 involving a dinner event with the Board meeting scheduled for 8 am to 12 pm Monday the 24th. He asked all Board members to note these dates on their calendar.

With those comments, Chair Sturm began the meeting.

Chair Sturm introduced Action Item 1, the approval of the September 10, 2012, Minutes and noted two corrections, one being that Director Baker was not present at the September meeting and Director Sprague's name was used on page 2 where Chair Sturm should have been named. Director Sprague moved to accept the minutes as amended and Director Hart seconded. There being no discussion, the motion carried unanimously.

Chair Sturm then discussed Action Item 2, an update of the fundraising efforts informing the Directors that he was pleased to report that in late December of 2012, IHMC received an anonymous donation from a woman with Pensacola ties of $400,000 to assist with IHMC Outreach efforts including the development of a Cmap tools web based application. He added that several local Pensacola Foundations also renewed their support for Science Saturdays and youth outreach efforts and mentioned that in Ocala, we have been very fortunate to have great community support for science outreach and the lecture series, including very strong financial support from Vice Chair Ron Ewers. Chair Sturm and the Board thanked Ron for his support.

Chair Sturm asked the Board for their continued help in identifying potential donors with giving capacity and interest in endowing new scientists and scholars, naming opportunities for IHMC buildings, and supporting outreach such as science Saturdays and the lecture series adding that as these are all funding costs that are not supported through the sponsored research activities of IHMC. He concluded this agenda item by asking all Directors to feel free to call or meet with me anytime to discuss fundraising ideas and that he would ask Julie to notice a special meeting for this purpose, adding that he welcomed everyone's thoughts and suggestions.

Chair Sturm introduced Action Item 3 and called on Director Baker, IHMC Chair for Financials and Audit, to discuss the IHMC financials and the latest Audit adding that everyone should have a copy in front of them to review.

Director Baker thanked Chair Sturm and informed the Board that the external financial audit ending June 30, 2012 had been finalized with no outstanding issues. Director Baker thanked IHMC staff for their hard work and sound business practices. He also stated that he had worked with Ronnie Armstrong and reviewed IHMC financials adding that through the seven month period ending January 2013, IHMC financials were consistent and strong and tracking the previous year with revenues up 7% and expenses down 3%. Director Baker thanked Chair Sturm for the opportunity to comment.

Chair Sturm thanked Director Baker and commented that procedurally, although this audit has been accepted and finalized by the IHMC Chair of Finance and Audit, he would like to request that the Board formally adopt the audit. Director Baker moved to accept the June 2012 Audit and this motion was seconded by Vice Chair Ewers. With no discussion, the motion carried unanimously.

Chair Sturm then introduced Agenda Item 4 and began a Board discussion on the future expansion needs facing IHMC adding that as many may know, IHMC Pensacola is woefully out of space and that we are leasing 3 facilities on Alcaniz Street in addition to the main facility and are without capacity to expand without new facilities. He mentioned that the current robotics laboratory, in particular, is less than satisfactory.

Chair Sturm informed the Board that IHMC staff were engaged in discussions and producing renditions and numbers on IHMC needs adding that currently we are considering options to build a new robot lab and conference facility with multiuse and classroom space that would allow us to move out of the rented facilities. He added that the current plan involved a retrofit of the current classroom to laboratory space and relocating the administrative employees in 127 S. Alcaniz into the main facility. With these changes, IHMC would have capacity to hire additional research staff and grow the employee base in Pensacola. Chair Sturm also mentioned that there are some discussions ongoing in Pensacola surrounding the Tech Park adjacent to IHMC and whether these is some synergy in locating all or part of IHMC's Pensacola infrastructure on this property. He commented that this would involve building approximately 60,000 sq. ft. of new space that would contain an office facility, robot lab, conference, multiuse and classroom space and that IHMC is also exploring this possibility.

Chair Sturm then mentioned that IHMC is exploring the feasibility of an IHMC Foundation that would control IHMC's various properties and resources and execute a long-term lease back to IHMC where IHMC pays rent to this entity. He mentioned that while staff will be exploring these items in more detail, one immediate action item for this Board concerns a warehouse operated by the West Florida Historic Preservation Board Inc. (WFHPI) and owned by the Department of State that sits adjacent to IHMC property on Romano Street adding that WFHPI is a direct support organization of the University of West Florida.

Chair Sturm informed the Board that the WFHPI Board has offered to provide a 99 year lease of this site to IHMC for $100,000 donation to their Foundation as it is a non-historic structure and a little bit of an eyesore and the purpose in IHMC acquiring the structure would be to remove it and add the land to current expansion property. He mentioned that the property contains no asbestos and IHMC would be looking to obtain state approvals to acquire this property if possible but that there may be some additional reclamation and archaeological costs thus the offer for IHMC to purchase/lease the property. Chair Sturm added that IHMC staff would be charged to move forward exercising due diligence, obtaining a current appraisal and demolition cost estimates prior to finalizing an agreement.

At this point, Director Bear recused himself from voting on this issue due to a potential conflict should the warehouse lease be brought before the UWF Board of Trustees, of which he is the current Chair. Director Ewers asked some questions concerning the location of the warehouse and the proximity to the building at 40 S. Alcaniz.

A motion was made by Director Hart and seconded by Director Ewers to allow IHMC staff to explore options and preferred means of acquiring the property and to report back to the Board at the April meeting after concluding initial due diligence concerning the current appraisal and costs of building removal. Chair Sturm requested that Dr. Dana work with Julie Sheppard and Ronnie Armstrong to find the best way for IHMC to work with the State to take possession and still find a way that WFHPI retains the proceeds from the transaction to meet their future storage needs. There being no further discussion, the motion passed unanimously with Director Bear having recused himself from this vote.

Chair Sturm then read his proposed changes to the IHMC Boards and Committees concerning Agenda Item 5. He circulated the list and asked the Board members to review the committee assignments adding that changes could still be made and these assignments finalized at a later meeting. Chair Sturm then circulated his list of assignments. : Additions to Boards and Committees.

Chair Sturm then concluded his action items and asked Dr. Ford to provide his report. Dr. Ford thanked Chair Sturm for the opportunity to provide his report. He mentioned that it had been some time since the last Board meeting and that he appreciated the time commitment from all to attend this meeting. He then began his Research Report.

Dr. Ford mentioned that at earlier Board meetings, he had shown a series of increasingly sophisticated simulations of what might be regarded as a mechanical ostrich adding that the team has done terrific work on this project and that the Board would be among the first to see this relatively amazing video. He then proceeded to show the Board a video of the Fastrunner project reminding the Board that this was a Defense Advanced Research Projects Agency's (DARPA) project with an application for urban warfare.

He then discussed new research being done on the new exoskeleton technology under joint development with NASA and showed a new video adding that this is exciting work

that nicely combines IHMC's extensive research in robotics, exoskeletons, and sensory substitution. Director Dalton commented on the importance of the research work being done on the exoskeleton.

Dr. Ford then mentioned work being done by Dr. Anil Raj and his team aimed at enhancing human performance in demanding environments mentioning that this was private sector work building on a long legacy of IHMC research for the DoD that uses similar technologies to enhance the performance of military aviators and others. Dr. Ford then showed the Board some video of Dr. Raj's research.

Dr. Ford then turned to funding mentioning that since the last board meeting in September, IHMC has received eight new awards totaling $11.9 million in funding. He mentioned that he had previously discussed some of these awards as "pending", so he would briefly mention these and mainly highlight a few that have not yet been discussed.

Dr. Ford stated that Ocala's own Dr. Yorick Wilks has received $3.7 million in funding from the DARPA Deep Exploration and Filtering of Text program, which seeks to harness the power of natural language processing technology to extract from text implicitly expressed, actionable information that might not be readily discerned by humans. He added that this was in partnership with the University of Florida and the University of Albany, and that IHMC will be leading a 4 ½ year effort to develop algorithms for understanding multi-party conversations in both English and foreign languages such as Chinese and Farsi, including exchanges that are partially or inaccurately transcribed or where one party's utterances are unavailable. He mentioned that the resulting technology will enable analysts to investigate orders of magnitude more intelligence documents with a significantly enhanced understanding of dialog content, well beyond the surface word meanings themselves.

Back in Pensacola, Dr. Ford announced that the IHMC robotics group has now received a $5.8 million, 5-year award through NASA under the National Robotics Initiative, which aims to accelerate the development and use of robots that will work alongside and cooperatively with people. He added that while IHMC is pursuing a complementary effort under the DARPA robotics challenge to develop humanoid avatar robots capable of assisting in exploration and recovery of terrestrial disaster sites, the NASA-sponsored work could uniquely contribute to long-range co-exploration of planetary surfaces and even the building of space colonies.

Dr. Ford then mentioned that he was particularly pleased to announce two new awards made to two first-time Principle Investigators, adding that these PIs are the "engine" of invention and innovation at IHMC and the development of new investigators is critically important to our future. He stated that Dr. Tom Eskridge has received his first major award as an IHMC principal investigator (or lead researcher), with a $947K subcontract from the Florida Institute of Technology to support the Department of Defense in the area of cybersecurity. He added that this was a 3-year effort, working with FIT Associate Professor and IHMC research scientist Marco Carvalho to continue advancing Moving Target Command and Control concepts for computer network defense. Dr. Ford

mentioned that the Board may recall from previous years' work, that this moving target cyber defense allows networked computers to change their structure and configuration dynamically while maintaining their functionality and availability to legitimate users and in turn, the complexity of the system's behavior presents attackers with an uncertain and unpredictable target, making it difficult for them to succeed in their malicious intent. He added that in this new effort, IHMC would focus on extending the moving target framework to enable adaptive response to specific attacks, to actively model system behaviors as a better way to understand system health and threats, and to analyze evolution of hacker strategies in response to deployed defense mechanisms using a human-agent teamwork approach. He mentioned that the goal continues to be increased system resiliency for safe network operation in an inevitably compromised environment.

Dr. Ford then announced that Dr. Micah Clark had also received his first major award as an IHMC principal investigator, and that this was a three year $656K grant from the Office of Naval Research to study predictive, computational models of human reasoning, especially human reasoning about the mental states of others. He added that Micah's goal in this research is to enable robots and other (semi-) autonomous systems to interact naturally and socially with humans – something foundational to IHMC's philosophy of human-centered computing – and in pursuing this Micah is focusing on mechanisms for accurately anticipating human beliefs. Dr. Ford mentioned that during this effort, Micah would be working with Yorick Wilks, and together they will be incorporating work pioneered by Yorick in belief engines and mental state ascription adding that the Board. Would be hearing from Micah later today, so he will tell you more in his own words.

Dr. Ford commented that Dr. Jeff Bradshaw's team has also received two new awards since the beginning of 2013 mentioning the first of these being an 18-month, $272K collaboration with MIT Lincoln Lab, a federally funded research and development center that conducts advanced technology development for national security applications. In this effort, Dr. Ford stated that Jeff Bradshaw, Larry Bunch and Tom Eskridge will be partnering with researchers at Lincoln Lab to develop ontologies, or data models representing a domain, for use within cyber test range and cyber situation awareness applications. He explained that this work builds upon a previous effort where IHMC and Lincoln Lab collaboratively explored human-centered interfaces to a cyber gaming environment. Dr. Ford continued by mentioning that the Bradshaw team's second new award is for $443K from AFRL through Raytheon BBN Technologies to jointly develop innovative methods of information sharing and management that maximize the value of information flowing from producers to consumers during military operations. In the current state-of-the-art, Dr. Ford explained that information management services deliver only what a user asks for at a syntactic level, not necessarily what they need, or else they deliver everything a user asks for, even if that information is redundant, irrelevant, or incompatible with a user's display. He explained that the Raytheon-IHMC team would be developing "Adaptive Mission Templates" that will support user-friendly definition of mission descriptions, automatic generation and update of information requests, reasoning and brokering over information, and prioritization and filtering of information based on user and mission needs. He mentioned that Andrzej Uszok and Larry Bunch will join Jeff in leveraging foundational IHMC research and tools, such as using KAoS policy services

to streamline information flows adding that the goal of the overall effort is to advance AFRL's existing Information Management services as mission-oriented, user-friendly tools that provide unprecedented access to critical information, increasing real-time situational awareness and resulting in a force multiplier in military operations.

Dr. Ford then turned the discussion to Dr. William (Bill) Clancey mentioning that Bill has been on loan to NASA for the past 15 years and that while this has been a great experience for Bill … and especially for NASA, all good things come to an end and that Bill is in the process of wrapping up his IPA and is exploring new work on real time health agents in the context of the emergence of low-cost/high-performance sensors able to assess useful biomarkers. Dr. Ford stated that envisioned project would involve commercial partners as well as a Malaysian government innovation fund and that he had the privilege of visiting Malaysia this past holiday season and met with both the relevant Malaysian governmental entities and with the potential commercial partners in this work. Dr. Ford mentioned that all are hopeful that this interesting project will come to fruition.

Dr. Ford then discussed the Singapore collaboration mentioning that as part of his recent Malaysia trip, he also visited the Defense Science Office in Singapore and that as many remember, IHMC has had researchers from DSO visit IHMC for extended stays and have developed technologies for which we are jointly pursuing patents. Dr. Ford then showed the Board a video of the DSO research.

Dr. Ford then concluded his Funding Update and the Research Report adding that IHMC researchers have been very productive since the last board meeting and that in fact, it has been one of the most productive periods in our relatively brief history. Director Dalton congratulated IHMC on its research productivity adding how important this is to Florida.

Dr. Ford then turned to the Legislative Update commenting on the federal scene stating that despite the challenging and uncertain legislative environment in Washington, IHMC continue to look for new opportunities and to build new relationships and hope despite very large anticipated cuts in defense R&D, that many of the areas in which IHMC conducts research are sufficiently important that funding will continue. Dr. Ford stated that because IHMC concentrates mainly on basic and applied research many pundits anticipate this arena fairing relatively better in periods of declining budgets. That said, he maintained that all of the research community is very concerned about the future and we are continuing to work toward diversifying our funding sources.

Dr. Ford then turned to the State Legislative Report mentioning that the State legislative session for 2013 begins today, March 5. He mentioned that the state outlook seems more positive than year's past although all states continue to have serious financial issues. He also added that IHMC generally has quite solid relationships with current and emerging leaders in the House and Senate. He commented that IHMC received close to $2.7 million in state funding in 2012-2013 and that we are currently pleased to be in both the Governor's budget and the State University budget for that same amount this year but that we never let down the guard and appreciate any chance any Board member may have to put in a good word for IHMC adding that this year will most likely be every bit as

tough as the past three have been in Tallahassee. He thanked the Board in advance for all efforts this session to help us with our goal by talking to the Governor, his staff or Florida Representatives and Senators. Dr. Ford then asked Pam Dana, IHMC's Senior Advisor for Strategic Initiatives to update the Board on the scenario in Tallahassee. Dr. Dana thanked Dr. Ford for the chance to update the Board and commented briefly on leadership in the House and Senate, key committees that IHMC would be briefing and the status on the time schedule for session.

Dr. Ford thanked Pam and then turned his discussion to new hires at IHMC mentioning that this after the research report is his second favorite topic upon which to report at each Board meeting. He commented that since that last meeting, IHMC has hired both senior and more junior scientific staff and he proceeded to mention some of these and that the Board would have a change to meet some of these new IHMC'ers later in the meeting.

Dr. Ford mentioned that Dr. Milenko Petrovic started at IHMC-Ocala in mid-February informing the Board that Milenko received Ph.D. degree in Computer Engineering from University of Toronto in 2007 adding that his research focuses on large scale data dissemination in mobile and sensor systems. He mentioned that Milenko's work has had application to IBM, O'Reilly Media, GM Research, and Buzzient, social media analytics with his research area being sometimes referred to as "big data" which is important to IHMC as it is complementary with much of our current work. Dr. Ford commented that the diversity and amount of human-generated data is growing by leaps and bounds; most of it in the form of sensor/mobile data and unstructured text with GPS, motion detection, RFID, vehicle telemetry, biotelemetry, emails, tweets, OCR, medical records and legal documents all helping to create the mountain of data. He concluded this by stating that IHMC is hopeful that this area of research at IHMC will continue to expand.

Dr. Ford then informed the Board that Marcus Thint began at IHMC-Ocala last week on a part-time basis working with Dr. Yorick Wilks on his Cubism project commenting that Marcus is a former British Telecom Research Scientist and technical manager and his primary focus has been applied research experience in Artificial Intelligence, software engineering, and robotics towards prototype and product development. He mentioned that Marcus also has considerable experience in information/knowledge management, personal agents & user modeling, fault diagnosis, intelligent control, machine vision, and software design including numerous professional publications adding that IHMC is excited about future opportunities for Marcus.

Dr. Ford then mentioned that Dr. Tomas By joined IHMC-Ocala in late January as a Research Associate working with Drs. Yorick Wilks and Micah Clark on the Cubism project and that this will entail using Tomas's experience with computational belief systems to assist in the design of a computer system that is able to understand the belief structure of those who have taken part in recorded conversations and predict what other beliefs they may have and what they may say or do next. Dr. Ford added that Tomas's work will involve the writing of programs, scientific literature reviews, assisting in the writing of scientific papers and further research proposals and that Dr. By did his Ph.D.

work with Dr. Wilks in England and although a Swedish citizen, comes to IHMC from Spain where he has been working as a research post doc.

Dr. Ford commented that IHMC is very pleased about these three new hires in Ocala and that they are a tribute to the growth of the Ocala research program, specifically relating to the exciting research projects of Drs. Wilks and Clark. He continued by mentioning that in addition to the new hires in Ocala, the robotics lab in Pensacola has been ramping up its hiring in preparation for the DARPA Grand Challenge competition in robotics and also as a consequence of the aforementioned new funding in this area.

He informed the Board that recently Shervin Emami received his M.S. degree in robotics from the University of Queensland, Australia and that Shervin is being added to the humanoid robotics team stating that while his main work effort is on computer vision, he will also be developing LIDAR algorithms, visual slam algorithms, and vision-based obstacle recognition and avoidance algorithms. Dr. Ford stated that Shervin was also part of our DARPA funded Urban Warrior Robot team in 2007.and that we are pleased to welcome him back to IHMC.

Dr. Ford then informed the Board that IHMC has recently hired Sylvain Bertrand, a Ph.D. candidate in robotics at the University of Versailles, France, who is also working with our humanoid robotics team focused on simulation software development for the DARPA Robotics Challenge project and the NASA NRI Avatar project. Dr. Ford mentioned that three other more junior engineers and computer scientists have also joined the team at IHMC competing in the DARPA Robotics Challenge including Stephen McCrory from MIT, Eric Morphis, from Georgia Tech, and Nathan Mertins, from UWF.

Dr. Ford then turned to a discussion of Ocala, asking Row for an update on our various activities in Ocala beyond research. Row thanked Dr. Ford and briefly updated the Board on the building stating that since we had done the latest work, there has been no water incursion for six months. He did comment that we are having a small problem with the theft of the flag out front, which has now been stolen twice. Row mentioned that the building is often quite busy with community events and outreach and that the lecture guests have grown to about 200 people. Science Saturdays is always full and we are once again looking to hold a summer robotics camp and host a teacher workshop. Row offered the new Board members a tour of the facility at the conclusion of the meeting and thanked Dr. Ford for the opportunity to provide this report.

Dr. Ford then turned to the discussion of the importance to IHMC of the development, protection, and licensing of intellectual capital and asked Julie Sheppard to give us a brief update on this topic. Julie thanked Dr. Ford and briefly detailed recent IP filings since the last Board meeting including the provisional filing on the robot FastRunner, a joint filing with the DSO National Lab in Singapore on Ambient Obstacle Avoidance, a Cyber patent named Date Flow Visualization Tool, and a patent to be filed this coming month called REDAR which involves sensory feedback provided to the wearer though head and body mounted sensors. Julie also mentioned two small licensing contracts involving Cmap Tools software that involve user licenses for textbook educational materials for $10,000

and $2,000 that have further capacity to expand. Julie also mentioned that IHMC is involved in discussions with a local firm in Pensacola on commercialization of Cmap Tools and we hope to offer more information at the April or June meeting.

Dr. Ford thanked Julie for her report and turned to the internet providing the Board an update on previous discussions that involved identifying appropriate means to partially monetize that heavy web-traffic on IHMC's site. In particular, Dr. Ford mentioned that CMap Tools generates tremendous traffic and downloads and that this year, we again had about 1.8 million visitors to our website. He mentioned that we had capitalized on an idea from Director Nickelsen years before concerning fundraising through internet usage and had received $22K in donations this year from that resource. He showed the Board slides evidencing website visitors to Cmap pages. He mentioned that even impressive is that as many as 56K copies of CMap Tools are downloaded in a single particularly busy month again demonstrating with a slide showing CMapTools downloads. Dr. Ford also mentioned that the Cmap Tools development of web-based applications would help reduce the number of downloads.

Dr. Ford then demonstrated to the Board a technology called the Netflow Observatory — an interactive 3D visualization of network traffic and showed a video depicting one hour's worth (500k events or 17GB) of internet-wide communications with IHMC in one minute on January 15th. He pointed out the world map at the top that is color-coded by country indicating where the traffic originates explaining the set of points across the bottom represents the public IP addresses at IHMC. Dr. Ford mentioned that IHMC handles about 500,000-700,000 communication events per hour, 12-15 million events per day and 430 gigabytes of data per day adding that these events are from about 140-150K distinct IP addresses hailing from over 200 countries.

Dr. Ford then turned the discussion to Community Outreach explaining that the IHMC lecture series continues to be very popular in both Pensacola and Ocala and that nearly all of the lectures are available for viewing on the IHMC website, Itunes, and YouTube. He discussed a slide showing the statistics for some of the IHMC YouTube videos depicting that tens of thousands of people enjoy these lectures over the internet noting that these statistics only report on YouTube viewers and do not include folks who watch the lectures on Itunes or on our IHMC website. He mentioned that once again, IHMC Pensacola is pleased to have the Clark Partington Hart law firm as a season sponsor and mentioning that in Ocala we have the College of Central Florida as Co-host and season sponsors of Rasmussen College and Ford Lincoln of Ocala. He asked the Board to let him know if anyone has a special interest in attending one of the lecture dinners, meeting a speaker or sponsoring any of these lectures adding that he would be happy to make that happen.

Dr. Ford then mentioned Science Saturdays commenting that IHMC staff in both Ocala and Pensacola continues to do a terrific job with Science Saturdays. He noted that IHMC-Ocala has expanded the program for high school volunteers that exposes students to accomplished scientists and engineers and that four students from Vanguard High and 13 from Forest High volunteered to assist with our Science Saturdays program. He

mentioned that all of these volunteers received community service credit. In March, Dr. Ford stated that IHMC will support Marion County School District by hosting a training session for elementary school teachers with sixty teachers from grades 3-5 selected by the district for their potential to make a difference in science education. He mentioned that most elementary school teachers haven't had extensive, science-specific training and that IHMC will welcome three afternoon groups of 20 teachers each for sessions that will include information about IHMC and Science Saturdays where the teachers will be able to attend a Science Saturdays event, and hopefully become part of the network spreading the word about HMC's educational outreach programs. He commented that Ocala's Fall Science Saturdays focused on using paper airplanes to explore flight, building Jello lenses for lasers, secret codes and paper chromatography and that the Fall Report of these activities where placed on the conference table.

In Pensacola, Dr. Ford mentioned that Science Saturdays events continue to attract an average of 40 students for activities that recently included exploring basic electrical circuitry, building efficient paper airplanes, working with American Chemical society members to analyze how the characteristics of fire change based on the chemicals involved, and building crank-powered devices from shoe boxes, foam and skewers. He mentioned that the paper airplane session featured Ken Blackburn, an engineer from nearby Eglin Air Force Base who holds the world record for time aloft for a paper airplane and that the student participants received templates of his record-setting plane.

Dr. Ford shared that IHMC also took science into the musical sphere this year by participating, along with other community groups, in the Pensacola Symphony Orchestra's annual Music for Families event at the historic Saenger Theatre. Also, during this event, youth learned about music and musical instruments before attending a concert. He added that IHMC sponsored a table delving into the science of music.

Dr. Ford also mentioned that this April, in conjunction with National Robotics month, IHMC will again be opening its robot lab for demonstrations adding that this is a very popular event in Pensacola and is usually attended by several hundred people.

Dr. Ford then picked up the recent newsletter on the table saying that in front of each Board member is the most recent newsletter highlighting the work of our cyber security group with the main article featuring a team led by IHMC Research scientists Jeff Bradshaw, Marco Carvalho and Andrzej Uszok applying the concepts of human-agent teamwork to develop tools that combine the work of human intelligence analysts with that of automated software agents. He stated that the resulting "sensemaking" strategy would help analysts understand, anticipate and act against complex cyber threats showing the Board a video of the cyber sensemaking. He added that also in the newsletter is an interesting article on Yorick's work with DARPA on a project working to equip computers with the ability to understand human language as we do, with an application aimed at improving national security. He mentioned that this project, called CuBism (Conversation understanding through Belief interpretation and sociolinguistic modeling), is funded by DARPA.

Dr. Ford concluded his remarks by telling the Board how much he appreciates the time given to this IHMC Board and thanking the Board in advance for any assistance provided to IHMC this year in Tallahassee. Dr. Ford thanked Chair Sturm for the opportunity to provide his report.

Chair Sturm thanked Dr. Ford for an excellent report and informed the Board that after a short break, they would reconvene to meet the new IHMC researchers in Ocala, and hear three short presentations from Dr. Micah Clark, Dr. Dave Atkinson, and Dr. Ursula Schwuttke.

After meeting Drs By, Petrovic, and Thint and hearing presentations from Dr. Clark on his new research project, Dr. Atkinson on his research and Dr. Schwuttke on Ocala outreach, Chair Sturm asked the Board for any additional items or comments.

Chair Sturm thanked all the presenters and then asked the Board if there were additional items to come before the Board. With no additional comments, Chair Sturm announced that a lunch would be served after the Board convened for a group photo. The IHMC March 5th meeting was concluded at 11:45 a.m.

Respectfully submitted,
Julie Sheppard, Corporate Secretary