



Aries Industry Advisory Board

Date: April 30, 2024

Time: 9:00am – 11:00am ET

Location: Zoom

Attendees:

Aries Systems: Jennifer Fleet, Brianna Bowen, Bill Reuschlein, Ryan Walther, Nathan Westgarth, Kevin Lawson, Nathaniel Stuntz

Industry: American Chemical Society, American Society of Civil Engineers, PLOS, Sage Publishing, Taylor & Francis, Sciendo, University of Chicago Press, Wolters Kluwer, World Scientific

The meeting commenced at 9:02 am US – Eastern. Jennifer Fleet, Managing Director—Aries Systems called the meeting to order and welcomed the board members, thanking them for their time and participation.

We then went around the “room” and shared introductions and what board members were most interested in hearing more about:

- The STM integrity Hub integrating tools into their workflows
- What people are doing with different demographic tools
- What is happening inside of different areas within the industry and how can we better serve our customers together
- Looking to hear more on what we are working on at Aries
- Interested in what’s next post cloud migration

Jennifer then reviewed the Ground Rules for the Board and the meeting, including legal guidance and participant guidelines.

She continued with an Aries Business Update covering:

- Submission Trends
 - Healthy growth. EM submissions are tracking closely with Q1 2021 Covid bump numbers. Growth really kicked off in Q3 2023 and we continue to see increases
 - This tracks with what other board members expected
 - Board members are struggling with messaging to journals who don’t view 2020 and 2021 as an anomaly

- Chinese journal growth is more significant than US. We are also seeing discrepancies across disciplines as well (medical is taking longer to “bounce back”)
- Page Views by Country
 - Largest percentage of page views is the US which is slightly larger than page views coming from China. This differs from what we’ve seen in the past.
 - Increase in the percentage of views from India and the Philippines – which led to thinking this may be views from third-party service providers. A few board members agreed with this logic
 - Page view counts may be based on VPN from the user

Nathaniel Stuntz, Director of Engineering at Aries, provided an introduction and shared his technology philosophies and approach.

- Than introduced himself and shared his background
 - 25+ years in development working most recently with Monster.com as a manager and director. At Monster.com he was part of the cloud migration and is thrilled to see Aries moving forward in this direction. He joined Aries Systems in December of 2023
- Tech Philosophy
 - The purpose of technology is to enable the business function using the software. Developers are problem solvers looking for solutions and ways to automate
- Development
 - People, process and practices are used to create the best development through CI/CD, Agile, ongoing professional development
- Automation
 - Exploring how we do automation better, how we test it and make it more efficient to free up resources to work on the product
 - Testing and continuous integration/continuous deployment (CI/CD) are the main areas of focus. As an organization we want to speed the time to release to better serve our customers and users
 - Testing is all about repeatable process and ensures reliability
- Cloud Infrastructure
 - Our next move is to understand how we leverage cloud infrastructure
 - We are now able to focus on freeing up resources to better the product

Bill Reuschlein, Senior Director of Operations, introduced himself and presented on the cloud migration:

- Why moving to the cloud matters?
 - We want to have our technical teams focusing on innovation and delivery, rather than the cumbersome activities related to data centers and hardware
 - With the Cloud technology, we can scale our application based on load and we don’t need to rely on hardware
 - Major focus on stability. As traffic fluctuates, we can automatically adjust our servers based on needs to ensure EM/PM is responsive and available to our customers
 - Everything is now through code so that it is repeatable and largely happens every month through routine patching

- Enhanced focus on automated testing which allows our teams to recognize if something isn't working before it's released. Developers and Quality Engineers have new Cloud environments in which to test code and build automated tests which significantly reduces the number of bugs seen in the production environment
- With continuous integration/continuous deployment, we can release smaller changes more often. We've moved from once a year to every 4 weeks and now that we are in the cloud we can release more frequently
- Any repairs to the system will happen in the background without customer impact.
- Migration Timeline broke EM into 31 parts
 - Component one: August 2022
 - Migrated our Asynchronous tools and services, such as Similarity Check, Duplicate Submission Check, ORCID Peer Review Deposit, and checkCIF
 - Component two: August 2023 EM/PM Customer sites and services
 - Over 9,000 sites migrated
 - >45 TB of data migrated
 - Component three: April 2024 Asynchronous tools and services
 - Final journal sites, PDF build, Sanitize File, Submission Text Extract, Scheduled Task, Inera Reference check, Inbound/outbound mail, Reporting, SFTP, RabbitMQ
- Key Progress
 - 10,196 journals migrated by April 6, 2024
 - 100% of publishers fully migrated by April 8, 2024
 - 31/31 components migrated
- Performance Improvement Stats (January 2023 - March 2024)
 - Page load times decreased on average -47%
 - Application performance index increased by +7%
 - Page load time improvement in China: -69.5%
- Process Improvements
 - Significantly improved security within infrastructure and code base through the cloud migration. All of Aries infrastructure comes from Amazon Web Services (AWS) which monitors for vulnerabilities. Several new tools were introduced to ensure this.
 - Aries Network is restricted to only Aries staff. We have full control of who has access to EM. Every request for access has a formal request, approval, and audit process.
- What's Next?
 - Working through additional technical resiliency and disaster recovery tests
 - Continue to improve the software development lifecycle to ensure developers are more reactive to needs
 - Shorter release times
 - Infrastructure and application tech debt. Due to speed in which we had to migrate we made decisions that we are now going back to prioritize these against other business needs
 - New feature development
 - Editorial Manager Identity project

Nathan Westgarth, Vice President of Product Management at Aries, presented on the product roadmap.

- Product Development Roadmap and Approaches 2024 and Beyond:

- Editorial Manager Identity
 - This is a new theme for 2024. EM has evolved over the past few decades so that we have unique users for each site, which poses difficulty for those who have logins across multiple sites. Kevin Lawson will share more on our progress in his update.
- User interface and user experience
 - Deployed Editor Main Menus in mid-April and have received good feedback
 - Login frame is being worked on. We are focusing on design and accessibility improvements due for release in June.
 - Reviewers accept/decline email deep links workflows to optimize the process and take less of the Reviewer's time
 - Registration form design and accessibility improvements due in Q3
 - Journal homepage redesign in discovery being conducted through our customer user engagement program and we will be sharing a concept at our upcoming user group meeting in June
 - Customer and user feedback program – 2023 stats:
 - 250+ interviews performed and surveys sent to ensure we capture customer and user feedback
 - 80 users actively participating in the program
 - We will be launching an in-product feedback mechanism as well.
- Partner ecosystem and API services
 - Strong partner ecosystem supporting many use-cases
 - Seeing a growing community of integrity vendors: manuscript content checks, image integrity, duplicate submission, Author confidence.
 - We are looking at how EM should be taking a role in this especially around Author confidence
 - Looking to partner more with our parent company, Elsevier, to bring the submission tools they've developed to our customers. We've had great success in offering Find Reviewers using Scopus and working on the New Submission Experience. We've started including some of our customers in the early stages to ensure we capture their needs as we build the tool.
- EM workflow enhancements
 - With the cloud migration ending we are shifting capacity back to product enhancements
 - Resolving customer feedback from our migration such as issues with bounced emails
- Performance improvements and product reliability is still a focus
 - Workflow enhancement themes we are focused on:
 - Improving diversity with inclusionary data and reporting
 - Enhancing usability and value through discussion forms – we are working to release anonymized reviews
 - Mentorship in peer review
- Future roadmap planning and discovery
 - AI and LLMs, how can we partner to discover needs?
 - Authors – language editing and translations
 - Editors – verifying the submission

- Reviewers – ensure they are being invited to review most relevant content and making it an easier process
- Production editing – improve content and formatting and copy editing
- Reporting solutions in EM
 - We are looking to see if we can reconcile EAR and XEAR to improve the experience while keeping EM's advantage of having the best in market reporting tools available to our customers.
 - We have developed an MVP solution for inclusionary data reporting and are working on single and cross journal reporting offerings. We are closely keeping an eye on what changes come out via the Joint Commitment on data collection. We are following industry standards
- Author experience improvements – designed to help journals grow and maintain their Author share

Kevin Lawson, Product Manager at Aries, presented on the Aries identity initiative

- Identity: Introduction and History
 - Prep phase began in November 2023 and discovery workshop began in January. We are now kicking off the project
 - EM identity
 - Logins per journal
 - Inter-journal resource sharing
 - Run into complexities with this with SSO adds a level of user maintenance
 - ORCID Sign-in
 - Current flow relies on users to retrieve their user ID at least once.
 - Vision is to provide a seamless identity and access experience. By seamless we mean any solution that's formed should make it easy to access our product with minimal friction or work arounds.
 - Goals are to address user pains of managing multiple credentials in EM, improve methods for user/staff administration, EM site-to-site seamless experience and improving SSO and MFA email validation
- Identity: Why are we doing this?
 - Multiple user credentials causing pain for users
 - MFA is not currently available to all customers and is used to prevent stolen accounts and support user integrity
 - Institutional affiliations
 - Role/account switching causes many support queries.
 - EM does not currently verify email address which could be an issue with spam and stolen accounts
 - Shared accounts
 - Compliance efficiency will be ensured due to email accuracy
- Identity: Project approach
 - Cross-functional team focused on a user-centric and technology-and-department-agnostic approach
 - Incremental progress was important to mitigate risk and to obtain small gains sooner

- Security best practices like GDPR policies
- Identity: workshop Methods
 - Product of the entire team. Used Miro as an interactive tool to allow for better collaboration. The framework behind the workshops was Design Thinking, which ensures we were looking at a way to find solutions in a more creative way. There are many different interpretations or versions of Design Thinking out there: these Workshops as an entire series follow a common iterative process of User Empathy -> Ideation & Prioritization -> Technical Requirements -> Create Solutions, etc.
 - Two technical requirements workshops have taken place thus far
 - As part of our Empathy workshop, we reviewed user supplied feedback and other data related to user experiences. Our UX researchers performed affinity mapping on our Miro boards to organize and categorize topics into their components.
 - Example: Breaking down user issues into categories to then later introduce design challenges to designers and engineers.
 - Categories prioritizing user feedback:
 - Every journal requires a separate EM account
 - Password managers do not recognize journals
 - People struggle to log in/create an account
 - Merging accounts
 - Rejecting a review invite requires an account
 - Still need an EM account for ORCID
 - Users not understanding role switching within EM
 - Shared example of the shared dependency diagram around the different areas. The categories are broken into Create Account, Log in, Decline/Accept Reviews + Deep Link Access, Log In, Multiple Accounts, Passwords, Switch Roles, and SSO. Here we have highlighted Multiple Accounts and Merge Accounts as the two top pain points for users based on the user feedback and voting activities that took place during the workshops.
 - The How Might We statements from the Ideation session were a way to pose design challenges to ourselves and it was a way to avoid suggesting a solution too early. The goal was to keep them intentionally broad, and they focused on the desired outcomes. The intention was also to frame them positively. We found that all participants were very engaged with this approach after adapting to a method of not trying to solve problems too early
 - In the ideation workshop team members challenged themselves to discover ways to make the solution stronger.
- Identity: Solution Approach
 - Key solutions we are expecting to come out of the project:
 - Single EM user identity
 - Seamless user experience for login as well as migrating to new account
 - Potentially email rather than username
 - Support publisher SSO and ORCID/other standard IdPs (likely promotion of ORCID sign-up flow)
 - Multi-factor authentication (MFA) support
 - Staged rollout

- There will be a period of pre-work that will let us focus on the things we can do now in the infrastructure to make it easier later and will not affect the core identity solution.
- Identity: Feedback?
 - Board members applaud the focus and can certainly see the value of this project

Wrap up

Jennifer shared that our next meeting would include an interactive session on research integrity given the feedback from today's meeting. She provided a summary of what was discussed and welcomed the board to continue the conversation with us offline. The meeting concluded around 10:47am US-Eastern.