Introduction

The Apereo Foundation, formed in 2013, is five years old. That anniversary is an appropriate place to take stock, analyze what we've done well, what we've done less well, and how we might improve to better serve our mission – “to assist and facilitate educational organizations which collaborate to foster, develop, and sustain open technologies and innovation to support learning, teaching, and research”. Such stocktaking has, of necessity, both an internal and external focus – analyzing changes in the salient features of the higher education landscape to better orient ourselves to realize our mission. The Apereo Board has conducted an open strategic planning exercise and policy review to help accomplish these ends during the course of 2017-2018.

Last year’s Apereo Foundation Annual Report noted the conversation opened by EDUCAUSE around the defining features of a “Next Generation Digital Learning Environment” (NGDLE). The broad Apereo community has deepened its engagement with this conversation, including:

- Malcolm Brown of the Educause Learning Initiative keynoting Open Apereo 2017 in Philadelphia
- Articles published in EDUCAUSE Review relating the significance of open source software in moving towards an NGDLE, and reporting practical steps being made
- A successful panel of speakers on the topic from Notre Dame, Harvard, Marist College, Penn State and Duke at the Educause Learning Initiative Conference in New Orleans

The contribution of Apereo community members to these conversations reflects a growing practice of institutional movement - away from the LMS as monolith, and towards more flexibly composed learning environments. The practice of the Apereo Community is a strong demonstrator of the power of open source software to support innovation to meet the needs of learners and institutions.

Many Apereo software communities touch the ground covered by the NGDLE. Apereo now stands at nineteen projects and communities, including those currently in our incubation process. In 2017-2018 we were joined by EQUELLA, Notifications Backbone, and OnTask. These three recently incubating software communities provide an interesting series of perspectives on how far Apereo has travelled:

EQUELLA is a digital repository that provides a single platform to house teaching/learning, research, media, and library content that was acquired by Pearson several years ago. Rather than effectively shuttering EQUELLA as part of a rationalization, Pearson transferred the software to Apereo stewardship as open source software. This recognition of Apereo was well founded - EQUELLA completed incubation in May 2018 and has made two significant releases over the course of the year.

Notifications Backbone recently entered Apereo Incubation from the University of Edinburgh. It aims to consolidate and enable coherent management of student notifications and messaging. The University of Edinburgh is a long standing Apereo and former Jasig member which supports a number of open initiatives. This is the first time the institution has begun what would formerly have been an internal software project with the intention of making it open source form the outset.

OnTask aims to improve the academic experience of students through the delivery of timely, personalised and actionable student feedback throughout their participation in a course. Initially
funded by the Australian Government Department of Education and Training, OnTask has the active participation of institutional and individual participants in SoLAR – the Society for Learning Analytics Research. The entry of OnTask into the Apereo incubation process is the result of longstanding dialogue between the overlapping Apereo and SoLAR communities.

Three projects arriving at Apereo from three very different directions – a strong indication of progress and an emerging Apereo profile.

During the course of 2017-2018 we have sought to improve Foundation and community communications. We rely to a very large extent on contributions from our communities to make this happen and take this opportunity to thank those involved in the Apereo newsletter, or who have provided content for the newsletter and website over the course of the year. Particularly thanks to Lucy Appert, of NYU, who edits the newsletter, and to all those institutions that have submitted short success stories or “vignettes” for the website.

In some respects, open source software in education faces a number of challenges. The very success of open source has bred a category of “fauxpen source” offerings. These appear to be open, but have proprietary tweaks, often in hosted offerings, which make them rather less open than they may first appear. Similarly, the “cloud first” mantra – which rapidly slides into “cloud only” – can easily leave an institution with a lack of control over its own destiny. Against this backdrop, Apereo membership churn might be anticipated. Apereo gained thirteen members last year and lost six. The fact that this was approximately financially neutral indicates a changing membership profile. We are seeing more membership from small commercial entities operating around open source software, and more from individual sections of institutions. In order to thrive we must grow in the two principle areas of activity through which we aggregate resource – partnership and membership.

Apereo activity with our partners in France, ESUP-Portail, continues to grow in breadth and depth. In addition to uPortal and CAS deployments, ESUP-Portail is actively participating in learning analytics activity in France, manage an instance of the Open Academic Environment for French Higher Education, and are involved in several significant pilots of the Karuta eportfolio solution. The increased scale of our collaboration is driving more active and regular liaison and communication.

In 2017, Apereo formed a new partnership with the LAMP consortium of twenty-five small colleges. LAMP institutions share an instance of Sakai and collaborate to host other tools and services. Apereo and LAMP are establishing ways to further promote shared instances of open source software, particularly for smaller institutions, and how we might collaborate more closely around teaching and learning issues.

Membership is the final theme of the draft strategic plan elaborated by the Board. We need to carefully continue to maintain balance as we grow – we don’t exist to remove resource from higher education, but to help retain it – but we do need to grow membership in order to sustain activity on a wider scale. Ultimately, everything Apereo does – recognition programmes, event underwriting, intellectual property management – rests on membership revenue. If you’re in an institution that uses Apereo software, or if you’re involved in an Apereo software community and your employer isn’t a member, please give some thought to how you might help change that.

Ian Dolphin – 29th May 2018
Incubation

The Apereo Incubation Process is designed to help steward a project from “great idea” towards the development of a sustainable software community. It is a structured process (available at https://www.apereo.org/content/apereo-incubation-process), which is

The time commitment to being a mentor averages two hours per month. The skill set we seek is diverse. Mentors do not need to have a technical background, but experience of technology related projects is an advantage. Apereo provides training and other opportunities to develop skills. Above all, the mentor must be capable of acting as a critical friend to projects. Not providing "the answers," but helping elaborate the alternatives available and encouraging consideration of alternative paths.

There were a series of personnel changes in the Incubation Working Group during August and September 2017. Jaquees Koeman stood down as Chair, and Allan Berg and Susan Bramhall left the group. Benito Gonzalez (Unicon) volunteered as Chair and took office in September. New volunteer mentors Dede Hourican (Marist College), Lars Keisow (University of Osnabruck), and Sam Lee Pan (University of Cape Town) joined Benito, Tim Carroll (Rogue Wave Software), Laura McCord (Rice University) and Robert Sherratt (University of Leeds) on the group. Mentor training was contracted with OSSWatch at the University of Oxford, and was provided in February and March 2018.

If you are interested in discovering more about becoming an Apereo Incubation Mentor, please contact benito.gonzalez [at] apereo.org or ian.dolphin [at] apereo.org.

New to Incubation

EQUELLA – EQUELLA is a digital repository that provides a single platform to house teaching/learning, research, media, and library content. EQUELLA entered and graduated incubation during the course of 2017-2018.

Notifications Backbone – The Notification Backbone aims to transform task-related communications within higher education institutions, through delivering a cross-system solution for personalised notifications and emergency communications, enabling notifications to be created-by and consumed across multiple services and communication channels. It is hoped it will improve end-user experience, increase efficiency and effectiveness of internal communication, and standardise and simplify key communication processes. Notifications Backbone is currently in the initial stages of incubation.

OnTask - OnTask aims to improve the academic experience of students through the delivery of timely, personalised and actionable student feedback throughout their participation in a course. OnTask received initial funding from the Australian Government Department of Education and Training. OnTask is currently commencing incubation.

Shuhari – Shuhari is a set of software components that enables institutions to begin the learning analytics journey on solid learning analytics foundation with low investment and no vendor lock-in. Shuhari brings together several components of the Apereo Open Analytics stack under a common umbrella for governance purposes. Shuhari is currently establishing an advisory group as an initial community governance body.
Incubating Projects

EDexchange – EDexchange, a project of the Postsecondary Electronic Standards Council (PESC) Common Data Services (CDS) Task Force of over 30 institutions and vendors, aims to create a secure network for the exchange of transcripts between US educational institutions. The open source, web service based software EDexchange creates has the potential to be utilized to setup secure networks to exchange education data regionally and locally in many countries. EDexchange has seen a major release during the course of 2017-2018, and is underpinning a transcript exchange pilot. Interest has been expressed in the software in Europe and Australia. It is anticipated that EDexchange will progress to graduation shortly.

ELMS:LN Learning Network – ELMS Learning Network (ELMSLN) is an open source educational technology platform for building and sustaining innovation in course technologies. It is a Next Generation Digital Learning Environment (NGDLE) that utilizes a Suite of Tools approach to system design and deployment. We believe it takes an ecosystem to effectively meet the needs of educators and believe in empowering faculty by treating courses as small networked ecosystems that encourage experimentation, fragmentation, growth, and then ultimately stabilization of new ideas. ELMS:LN is scheduled to graduate incubation in June 2018.

Image Quiz - The goal of the Image Quiz Project is to increase comprehension of complex subjects through visual learning. This goal is accomplished through the development of a series of computer-based visual training programs under the working title Image Quiz. Programs in the Image Quiz family are designed to rapidly help users become visual experts. Unlike novices, visual experts are able to quickly recognize patterns. This allows chess masters to recognize meaningful chess configurations, and field biologists to identify organism from a mere glance. Image Quiz attracted small contributions of code during the course of 2017-2018, and will be reviewed by the Incubation Working Group in September-October 2018.

POET - Poet Open Source is an organization that believes in the power of open source to innovate and advance learning and educational solutions. Poet’s members provide additional resources to help advance the open source projects that matter to them. Currently, Poet’s main focus is Moodle, an open source learning platform, and integrations with other open educational technology. POET will be reviewed by the Incubation Working Group in September-October 2018.

Tsugi - The goal of Tsugi is to build a scalable multi-tenant ”tool” hosting environment based on the emerging IMS standards to help move the industry toward a Next Generation Digital Learning Environment (NGDLE). The use of this framework does not automatically imply any type of IMS certification. Tools and products that use this framework must still go through the formal certification process through IMS (www.imsglobal.org). During the course of 2017-2018 the Tsugi developer list has reached 100, free saleable hosting for open source apps was deployed at www.tsugicloud.org, the first Tsugi commercial affiliate was signed up - Learning Experiences - www.learnxp.com, and numerous Tsugi presentations and workshops took place at events around the world.

uPortal Home (Formerly AngularJS-Portal) – uPortal Home is an alternative user interface for use with uPortal, leveraging APIs, content, and functionality in uPortal and adding experiences. The uPortal-home project includes an alternative-to-Portlets framework for developing applications for delivery through the portal. It also continues to support uPortal rendering of JSR-286 Portlets (so long as they are rendered in maximized or exclusive window states), in a snappy client-side way when it can, and via the traditional uPortal rendering pipeline when it cannot. uPortal Home is scheduled to graduate incubation in June 2018.
Unsponsored Contributions
In some cases, software may be contributed without being made by a sponsoring project. Such a contribution may exist indefinitely without becoming an Endorsed Project and are known as “Unsponsored Contributions”. The Incubation Working Group periodically review unsponsored contributions.

Learning Analytics Processor – During the course of 2017-2018, it was recognized that while LAP might retain utility for prototyping learning analytics queries, re-use of Apache big data components was more effective. LAP development was therefore halted, and the IWG agreed it would continue to be made available as an “unsponsored contribution.”
Apereo Foundation Board of Directors 2017-2018

David Ackerman (NYU) – Chair
Lucy Appert (Columbia, then NYU) – Vice Chair
Cheryl Brown (University of Cape Town, then University of Canterbury Christchurch)
Tim Carroll (Rogue Wave Software)
Laura Gekeler (University of Notre Dame)
Mathilde Guerin (ESUP-Portail and Université de la Rochelle)
Jim Helwig (University of Wisconsin-Madison)
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Theresa Rowe (Oakland University)

Charlie Leonhardt (Georgetown) – Treasurer, ex-officio
Ian Dolphin – Executive Director, ex-officio
ATLAS Award Winners 2018

Michael Friesen, University of Western Ontario, Canada
Course: Social Media and Organizations
This is a course about social media and how organizations can use it – ethically! – to advance their goals. It is practical, rather than either naively optimistic or hopelessly cynical. We learn about the technologies of social media as well as the practicalities of establishing and maintaining an organizational presence on multiple social media sites. We look at why an organization might want to be there, and where that organization might want to establish its practice. Most importantly, we do all this in the context of an online course that engages the students in collaborative, social learning experiences.

Eric Giraudin, IUT2 Grenoble Alps University, France
Portfolio: From an ePortfolio to an Intelligent and Professional Digital Environment
IUT2 Grenoble Alps University offers two or three years of bachelor-level education, preparing graduates to find employment and continue to develop before returning for further studies or continuing in lifelong learning. This path to professionalization is supported throughout all IUT2 academic programs by a professional skills portfolio using the Karuta Open Source Portfolio. The results of this portfolio process have been very positive, with students using their portfolios to:

- Formalize and decode their academic and non-academic experiences.
- Self-evaluate and request validation of their skills.
- Define and affirm their career path.
- Showcase their professional potential.

Kevin Abbott, Alex Ambrose, Maureen Dawson, and Paul Manrique, University of Notre Dame, U.S.A.
Course: Moreau First Year Experience
The Moreau First Year Experience is a required, two-semester sequence that helps first-year students make a meaningful transition to collegiate life at Notre Dame by integrating their academic, co-curricular, and residential experiences. Through weekly small-group meetings, students explore topics in higher education and university resources. Apereo tools form the digital framework of our courses. Our LMS, Sakai, contains all resource materials for both students and instructors as well as weekly reading/viewings and short reflections; a real-time gradebook; and a seamless interface with midterm and final ePortfolios assignments. Apereo tools ensure an innovative and transparent learning environment for students, instructors and course administrators.
Apereo Fellows 2018

**Shawn Foster - Western University**
Shawn is an eLearning Technology Specialist at Western University (Canada). As a member of the central eLearning Technology team at Western, Shawn works closely with local Sakai developers, eLearning groups, and central technology teams to improve Sakai for Western and for the Sakai community. Shawn has worked with Sakai since 2011 and is a member of the Sakai PMC. He enjoys collaborating with the Sakai community on regular community calls, at annual conferences, and through various community projects. Shawn is passionate about user interfaces and usability, and is always looking to improve Sakai.

**Luisa Li - Marist College**
Luisa has been an avid member and advocate of Apereo since she joined Marist College (USA) as an instructional designer in 2012. She led the working group of the Lessons Enhancement Project, served as the chair of the Apereo Teaching and Learning Awards, 2015-2018, and has been participating in many other sub-groups, projects and events. Her favorite part of the Apereo community is to collaborate with Sakaigers around the globe in order to share best practices and innovate teaching and learning using various educational technologies. Luisa recently returned to her homeland China and embarked on a new adventure to engage more Sakaigers in China.

**Rüdiger Rolf - University of Osnabrück**
Rüdiger works in the eLearning department of the University of Osnabrück (Germany) as a project manager and software developer. He is part of the Opencast project since the beginning in 2008 and is a member of the Opencast board (2010 to present). He manages the German-speaking community activities, including bi-monthly web-meetings and a workshop each year. He hosted the Opencast Summit 2013 in Osnabrück and was part of the conference committee in all following Opencast Summits.

**Tiffany Stull - University of Virginia**
Tiffany is a Sakai User Support Specialist at the University of Virginia (USA). After completing her PhD in French, she joined the UVACollab team in November 2014 and the Sakai community in 2015, initially participating in the Sakai Accessibility Working Group. She has continued to participate actively in the Accessibility Working Group and accepted the role of chair of the group in November 2017. Tiffany also actively engages with the Sakai mailing lists and chat discussions in Slack, focusing on the Tests & Quizzes and Forums tools and accessibility. She contributes Help content to the Sakai Documentation Working Group, and occasionally does QA testing. Following discussions regarding Tests & Quizzes issues at Open Apereo 2017, she began a weekly triage of Samigo Jira tickets in order to organize and prioritize reported issues; over 100 issues were reviewed as a result of these efforts.

**Tim Vertein - University of Wisconsin-Madison**
Tim first joined the Apereo community in 2013. He is part of the MyUW Team at his Alma Mater, the University of Wisconsin-Madison (USA), a flagship uPortal implementation. Tim is a regular presenter at Open Apereo and contributes to projects in the uPortal ecosystem. He has also sat on Open Apereo planning committees and helped host uPortal Developer Days. He is grateful to be selected as an Apereo Fellow and looks forward to the exciting future of uPortal.
Software Community Reports

Open Academic Environment

Milestones and releases
In the 2017-2018 OAE has had two main releases: version 13.0 was published in June 2017 and shipped LTI and Jitsi integration whereas version 14.0 (September 2017) introduced password reset as well as new modern drivers and security fixes. Since then the team has been working on the 15.0 release. This will include several new enhancements and fixes, including search improvements, Ethercalc integration (bringing the ability to collaborate around spreadsheets), easier content sharing, GDPR compliance functionality, among other fixes.

Parallel to this, the project has been developing a continuous integration / continuous deployment strategy which will provide the team with more agility, robustness and flexibility regarding the release process. This effort was initially triggered by the need to upgrade the technology stack - namely the Nodejs version to 6.0+ - which in turn forced upgrading the underlying infrastructure of the reference OAE deployment (http://unity.ac) and rendered the previous deployment strategies obsolete as a result. This is an ongoing effort which will allow the release of the widely anticipated version 15.0 in the next few weeks.

Community development
The number of outside contributors has been very low. One of the reasons for this lies on the fact that some of the current technologies are not aligned with modern best practices and paradigms, often something external developers look for in a project. This insight has led to the prioritisation of tasks that target clearing technical debt and improving developer ergonomics, which shall be addressed by the OAE team in the near future.

Strategic objectives
OAE is widely used by staff in French higher education in the context of research and other inter-institutional collaboration. The project is now examining future directions which bring OAE closer to students – and to learning. This is driven by a groundswell among learners. There is strong anecdotal evidence that students in France are chafing at the constraints of the LMS/VLE. They are beginning to use social media – not necessarily with adequate data or other safeguards – to overcome the perceived limitations of the LMS/VLE. The core functionality of OAE – people forming groups to collaborate around content – provides a means of circumventing the LMS’s limitations without providing data to the social media giants. OAE embodies key capabilities supporting social and unstructured learning, and indeed could be adapted and configured as a ‘student owned environment’: a safe space for sharing and discussion of ideas leading to organic group activities. The desires and requirements of students have not featured strongly in NGDLE conversations to this point: The OAE project, beginning with work in France, will explore student discontent with the LMS, and seek to work together with LMS solution providers and software communities to provide a richer and more engaging experience for learners.

Participation in events
The OAE team attended the 2017 Mozilla Festival mostly for networking and community building purposes.
Bedework

Over the course of 2017-2018, Bedework made four point releases: 3.11, 3.11.1, 3.11.2, 3.12. These releases included the following enhancements -

Switched to Wildfly!
Java 8 required
Elasticsearch
Significant performance improvements and better error handling
All Bedework code is now in Github
Maven Central in use
Project documentation is in the process of moving to Github pages
A scripted quickstart installation is in place, including
  Restartable script downloads each individual module and wildfly
  Allows choice of development or current
  Further work to enable user choice of modules is planned
Public events enhancements
  Workflow has been improved to allow moderated events
  Submissions from community to specific calendar suites
  Suggest events to other groups
  Structured and unstructured categorization
  Rich location information, including ability to mark location as accessible, and to provide map URL / geolocation
Archiving (soft delete) of events

Improvements have been made to the administrative interface, with further improvements planned
Bedework now features a heavily customizable front-end
Outbound data feeds / API - JSON, ICAL
Sync engine for synchronizing events from other systems
timed imports
OrgSync supported
Plugin mechanism to allow for handling non-standard data formats
Notification engine
Send templated email notifications
Bulk data import, export, and data migration via scripts!

Coming soon
Searchable locations and contacts for easier data entry in administrative interface

New Adoptions
Yale University running to 3.11.2 - will upgrade soon to 3.12.1
Studentivity - NSF Funded project using Bedework as calendar engine

Yale University supported the development of most of the enhancements found in the Overview. Bedework holds monthly steering committee meetings.
CAS

2017-2018 saw two CAS feature releases, with well over 400 improvements and changes, together with eight patch releases

- 30+ CAS-specific blog posts on the Apereo community blog
- Over 200+ "outside" contributors; 3 new CAS committers
- 100K hits on the CAS Github project website on a monthly basis (apereo.github.io/cas)
- 4000+ stars and 2000+ forks on Github (From the old 2000+ and 500+ respectively, this time last year)

Presently marching towards a 5.3.x feature release, to be unveiled at Open Apereo
Working on the next major release in parallel, CAS 6, with updated Java support towards November 2018.

CAS continues to see a huge spike in terms of adoption across a range of industry sectors, with notable adoptions in the the Department of Defence. Our goal is to help grow the number of stars and forks on Github and reach 300+ contributors by end of 2018.

Karuta

Software Milestones
The Karuta 2.3 spring 2018 release features technical improvements and new functionality:
Bubble-map. Users create a visual summary of their portfolio content by editing a bubble-map and sharing using a unique QR code.
Export. Users export their portfolio along with its files via ZIP/HTML format or RTF export.
Help is now managed using a form instead of an email.
+- status. The open/closed status of sections is kept in memory for accessing content.
Large portfolios. Designers may opt to initially display only the main portfolio sections.

Project Governance
The Karuta Governing Document has been developed further to better describe the role of the Karuta Governing Board. This can be found at https://docs.google.com/document/d/1FU4TzptDBxxAY53SSAj5PnlpQEX3sMjkITRqEBdK4Nk/edit?usp=sharing

The new Karuta Governing Board members are as follows:
Eric Duquenoy, University of Littoral, France
Lionel Filippi, IUT2 Grenoble, France
Chantal Dupont, University of Liege, Belgium
Thierry Koscielnik, CNAM, France
Martin Ramsay, LAMP, USA
Jacques Raynauld, ePortfolium, Canada
Olivier Gerbé, ePortfolium, Canada
Eric Giraudin, IUT2, France
Shoji Kajita, University of Kyoto, Japan
Janice Ann Smith, USA
At the first meeting of the Karuta Board on May 22, 2018, the following topics were discussed:
Purpose of the Karuta Governing Board
Current status and adoption of Karuta
Development of an international Karuta Community
Transparency of the Karuta project
Funding issues
Internationalization
Strategic objectives and future directions
Community Development

Karuta in France
The use of Karuta in France has expanded with new adoptions, pilots, and explorations.
https://www.google.com/maps/d/u/0/edit?mid=1ZCzd4k8TTnh_vMjrCX1eP_5sUKE_pT0- &ll=46.944026703087935%2C3.099853149999444&z=6 In addition, Karuta is currently used at
the University of Liege, Belgium; the Centre jeunesse d'emploi de l'Outaouais (CJEO) and HEC
Montréal, Québec, Canada; the University of Kyoto, Japan; and the New Brunswick Theological
School in New Jersey, USA (via LAMP).

Strategic Objectives
The Karuta Project objectives for 2018 and their current status are as follows:
Additional documentation of the use of Karuta in both French and English was added to GitHub
and the Karuta Project website to supplement existing Karuta workbooks.
https://github.com/karutaproject/karuta
http://karutaproject.org
Additional templates representing authentic use cases in Karuta were added to GitHub including
a Europass Language Self Assessment template, a blocks component for Karuta showcase
portfolio pages, HEC Montréal CV templates, an Essential-MBA template, Promising (a creativity
skills template), and FLTV (a lifelong learning portfolio). The new Karuta Governing Board anticipates a future international Karuta community.
The project is more assertive with publicity, starting with Karuta t-shirts, business cards, updated
cpyer, hosted reception, and increased social networking at Open Apereo 2018.
New interest and recent adoptions of Karuta in France are shown in the map link above.

Participation in Events
Open Apereo 2017
All-Day workshop: Karuta Templates: Jump Start Your Portfolio Project
Presentation: Karuta 2.2: Use Case Testimony for an Open Source Portfolio Solution
Showcase: Leveraging Karuta Dashboards: How to Make Learning More Visible
Conferences and Workshops in France
Karuta: Nouveautés, Exemples de Projets/Retours d'Expérience et Présentation d'un Modèle de
Karuta 2018, Nouvelle Version, Nouveaux Témoignages, en Route vers de Nouvelles Innovations!
ESUP-Days #25, Paris, 2-6-18.
Karuta Workshop (Introduction and Advanced), CNAM, 2-7-18.
Karuta Workshop (Introduction and Advanced), Polytech Annecy, France, 4-5-18.
Tirées des Expérimentations Karuta, Conference La Démarche E-portfolio dans L'approche par
Compétences, Université Savoie Mont Blanc, Annecy, 4-6-18.
Karuta Workshop, Grenoble, 4-11-18.
Apereo Portfolio Webinars, June 2017
How ePortfolios Work to Improve Learning, Assessment, and Showcasing
How to Make ePortfolios Work at Your Institution
Configuring an ePortfolio for Your Institution Using the Karuta Open Source Portfolio
*Sakai Virtual Conference, 11-14-17: NBTS ePortfolios for Assessment and Showcasing
Future Conferences and Workshops
Workshop and various presentations at Open Apereo 2018
A Karuta workshop is planned at the ESUP Conference, Paris, 15th October 2018,
https://www.esup-portail.org/conference/

OpenCast

Last year was a period of stability for the Opencast community allowing for a series of organizational fundamentals to be put in place: The Opencast board successfully broadened the funding scheme for the Opencast QA community manager position from two institutions to seven sponsors.
At the same time, we turned this from an institutionally organized scheme into an Apereo membership model, so a handful of institutions joined Apereo on the basis of the split “Core Foundation” / “Supporting subscription” model.
As far as the further development of the software is concerned, we saw a remarkable number of releases (13 in 12 months) overall with two major releases (3.0 and 4.0) according to schedule, with the latter implementing major architectural enhancements (asset manager, scheduler).
Technically, we moved from Bitbucket to Github.
Opencast was present at Open Apereo, Lars Kiesow from Osnabruck joined the licence group.

Sakai

Over the last twelve months, Sakai has had over 1,786 commits from 91 developers updating its 1.5-million-line code base. Since June 2017, Apereo has received thirteen new contributor licenses listing Sakai as a primary project. Sakai has at least 250 institutional adopters worldwide - the exact number of institutions using Sakai is unknown, since Sakai is free to download without registration and has no mechanism to “call home” to let us know it is being used.

Adopters include:
Public Research Universities
Brock University (Canada)
Texas State University (USA)
Nagoya University (Japan)
Kyoto University (Japan)
Tokyo Metropolitan University (Japan)
University of Cape Town (South Africa)
University of North Carolina at Chapel Hill (USA)
University of Virginia (USA)
University of Western Ontario (Canada)

Private Research Universities
Duke University (USA)
Hosei University (Japan)
Loyola University Chicago (USA)
New York University (USA)
University of Dayton (USA)
University of Notre Dame (USA)
Wake Forest University (USA)

Higher Education Institutions in other categories
Claremont Colleges (USA) - a consortium of five undergraduate and two graduate schools
Marist College (USA) - private liberal arts college
Universidad de Murcia (Spain)
Universitat Politècnica de València (Spain)
University of South Africa (South Africa) - largest university on the African continent and one of the largest distance education institutions in the world.

Sakai 12
Sakai 12 was released in March 2018. Sakai 12 offers significant improvements to the user interface in terms of accessibility and universal design, collaboration, analytics and learning assessment, and interoperability. Development goals for Sakai are to become more nimble, lighter, and more responsive as a product and as a community. Highlights of the 12 release include a new and more attractive skin; enhancements in both features and performance for Assignments, Gradebook, Lessons, and Tests & Quizzes; and the addition of new tools such as Commons for social messaging and Bullhorns for social and academic alerts. The first maintenance release for Sakai 12 was released in May 2018, and the second maintenance release is planned for the third quarter of 2018 (July-September).

Sakai 19
Planning for the next major version of Sakai has begun, with significant features already in the “master” branch (the main repository for all new features and fixes, which is constantly being updated). With this upcoming release, a new naming convention has been proposed where the year of the release is included as the version number. This naming convention is similar to conventions adopted by other software products such as Oracle and Ubuntu. This name change is also intended to go hand in hand with a push toward a more regular and frequent release cycle, with ideally one major release per year. The intention is that by including the year of the release, adopters will be more aware of the age of the version they are running, thereby encouraging them to upgrade to the latest release. Some of the main targets for Sakai 19 release include grading rubrics, additional accessibility improvements, a JSF upgrade (Java Server Faces) in Chat and possibly other tools, and significant user interface improvements throughout Sakai. Sakai 19 is targeted for release at the end of the fourth-quarter this year (Nov.-Dec. 2018), or early in the first quarter of 2019.

SakaiCamp
In January 2018, the third annual “SakaiCamp” in Orlando, Florida took place. SakaiCamp is an unconference-style meeting of community members. SakaiCamp provides attendees with opportunities for in-person discussions and working sessions to further develop and enhance Sakai and Sakai initiatives.

This year, SakaiCamp discussions and working sessions focused on solidifying the roadmap for Sakai 12 and building a straw man for Sakai 19, as well as strategic discussions about reducing technical debt, increasing the effectiveness of community marketing and fundraising efforts, and
ways in which the NGDLE concept can be realized within Sakai. The Sakai Manifesto emerged from these discussions as a set of guiding principles for current and future Sakai development.

The Sakai Manifesto
We evolve towards:
- **Lightness**: today's 2.9 million lines of code is being intentionally reduced
- **Usability**: including a simple, easy-to-use, globally accessible interface
- **Choices**: in templates, layouts, and tool selection (internal or external, favoring LTI integrations)
- **Interoperability**: using our influence to build better integration standards (e.g., LTI, OneRoster, Caliper, xAPI)
- **API coverage**: including all services with externally accessible APIs, leading to greater flexibility
- **Cooperation**: helping third parties to write their integrations to open standards
- **Analytics**: more data, both from the LMS itself and from integrated tools
- **Trust**: continue our focus on security, reliability, and data integrity to build a system that students, faculty, and administration can trust

Community Based Initiatives
There are several community-based initiatives that involve collaboration and resource sharing (money and people) for Sakai, including Ra11y, our accessibility initiative; Rubrics, native Sakai grading rubrics; Modernizing Forums, improving and modernizing the user experience in online discussions; and the UI Inventory project, the first step toward developing and implementing an updated and cohesive style guide across all tools in Sakai.

Sakai Virtual Conference
The Sakai Virtual Conference has continued to be a major success. We hold an annual virtual conference cognizant of the fact that travel budgets are constantly vulnerable to cuts and that international travel can be especially expensive for attending an in-person conference. In 2017, there were nearly 350 virtual conference attendees from 11 countries, representing 71 different institutions and organizations. There were 43 presentations on a variety of Sakai related topics, 50 presenters, and we raised approximately $13,000 in funding for Sakai development. Recorded sessions from the 2017 Sakai Virtual Conference are available on Sakai's YouTube channel: https://www.youtube.com/user/SakaiCLE. Popular presentations include: 'The Other End User Setting LMS Expectations Starting with Students' - https://youtu.be/PuAQ8-6g800 'Integrating Google Drive into Sakai' - https://youtu.be/8fqsN2nKVg4 and 'Towards an App Store for Education' - https://youtu.be/f_rnfBnpjHpHk

Regional and Local Meetings
In addition to the Sakai Virtual Conference, our global communities often organize local meetups and conferences. In the last year, we have had a local Sakai gathering in North Carolina at Wake Forest University; in Potchefstroom for the 2018 Apereo Africa event; in Kyoto, Japan for the 2018 JA Sakai conference; in Banner Elk, North Carolina at the annual LAMP Camp; And, of course, Sakai has a strong presence at the annual Open Apereo event.

Community Coordination
Sakai has many active online communication options. We have nine Sakai-specific email groups with our two most-active groups being our developers group (sakai-dev) and our users group (sakai-users). The Sakai community also actively uses Slack for real-time Discussions.

The community meets online via BigBlueButton for weekly calls for groups such as the Sakai Core team (development) and the Sakai QA planning group; and regularly for the Sakai usability
group, and many others. We keep all these meetings open and publish them on our community calendar. Details are posted to our email groups.

This year, the Apereo Foundation was faced with a budget shortfall due to a reduction in Apereo membership revenue for Sakai. As a result, maintaining a full-time coordinator position was no longer feasible. The Sakai PMC, Sakai Commercial Affiliates, and Apereo Board worked collaboratively to identify community leadership roles that would need to be filled upon the departure of the full-time Sakai Community Coordinator as of April 30, 2018. Going forward, these leadership roles will be filled by a combination of volunteer leadership and partial cost recovery paid to individuals’ organizations. The list of leadership roles and the individuals taking on those roles is included below. Where we have a lead / back-up in the position, there are two names listed. The PMC has made these appointments for 3 months and will review these roles again in August 2018.

Community Facilitator: Wilma Hodges (Longsight)
Release Manager: Matthew Jones (Longsight)
Branch Manager: Matthew Jones (Longsight) / Earle Neitzel (Longsight)
QA Lead: Dede Hourican (Marist) / Jolie Tingen (Duke)
A11Y Lead: Tiffany Stull (Virginia) / Terry Golightly (Johnson)
I18N Lead: Miguel Pellicer (EDF)
Security Lead: Miguel Pellicer (EDF)

In addition, the PMC will retain some of the Sakai member funds and make them available to help with travel and other necessary expenses if a person’s organization is not able to cover them in the individual’s volunteer role.

The PMC will monitor the costs of these new approaches and make adjustments over the coming year, including new compensated roles as finances permit. All funds that are spent will be done so in the open within the PMC and all of the Sakai SCAs. The PMC chair will report a summary of the expenditures around community support to the whole community quarterly. Our goal in this staffing activity is to build Sakai community leadership that is both broad and deep and can handle turnover in these roles.

The Sakai community has strengthened its product development, placing an increased focus on usability, accessibility, and mobile compatibility. Sakai also continues to lead the LMS market in adoption of the latest open standards (IMS LTI, Content Item, etc.). Community participation is active and sustained, with regular community working group meetings (Teaching and Learning, Usability, and Accessibility), conferences, and the recently-created SakaiCamp. Sakai’s commercial affiliates continue to play an active role in the ongoing development and maintenance of the product, bringing years of development and functional expertise to bear on the project. The newly-constituted marketing group has worked to strengthen our marketing messaging and materials, including a redesigned website and professionally-produced videos. Through these efforts, Marketing is working to expand awareness of the existing community and draw in additional institutions. This will ensure that Sakai continues to be an innovative and collaborative community, pushing the effective use of standards, including for those who use non-open source solutions, which benefits all of higher education.
UniTime

UniTime is a comprehensive educational scheduling system that supports developing course and examination timetables, managing changes to these timetables, sharing rooms with other events, and scheduling students to individual classes. The UniTime project became a sponsored project of the Apereo Foundation in March 2015.

Releases
The current version of UniTime (version 4.2) was released in June 2017. It featured a brand new instructor scheduling component, more mobile-friendly user interface (using responsive web design), improved ability to keep students of a particular group together in both course timetabling and student scheduling, point in time reports, and a number of other improvements across the whole application. A new version of UniTime (version 4.3) is now in Beta and is planned to be released in June 2018 (there are already a couple of universities that are using it in production). There have been many improvements to the batch student scheduling functionality, especially with regard to collecting student course requirements and their validation. It also features a brand-new course timetabling Suggestions page and many other improvements to the course timetabling solver. There have also been improvements made in the ability to customize and internationalize UniTime (especially for Arabic countries) and in the scripting and interfaces, including the ability to schedule periodic tasks within UniTime (sending reports, pulling data in or out of UniTime, etc.). Specifications are currently being developed for the next release of UniTime (version 4.4). Additional work is being planned on the student scheduling component (e.g., student schedule quality/fairness, asynchronous interfaces with an external system). We are also continuing the effort of making the user interface look & feel more modern, mobile friendly, and better localizable.

(Selected) New Features
In UniTime 4.3, all course timetabling solver pages have been rewritten to GWT, making the whole course timetabling component of UniTime fully localizable. There have been a number of new features added. These include the ability to export timetable grids into Excel, improved filtering of available suggestions, and the ability for a week to start on any day. UniTime’s scripting and reporting capabilities have been greatly improved in this release. The scripts and reports recognize more parameter types. There is a new Script API, and the scripts can be scheduled to run periodically within UniTime.

A lot of work has been done to support the collection of student course requests and batch scheduling of students. An interface has been developed to allow custom validations and student course eligibility checking to be plugged into the Student Course Request page. There are more capabilities for academic advisors (and other administrative users) to monitor student progress as well as course availabilities. There have also been a number of improvements made to the batch student scheduling solver.

The number of UniTime manuals has grown substantially over the last year. For example, there is a new Administrative User Manual covering the initial configuration and setup of UniTime. See this document for all the available UniTime documentation.

For more details, please see the UniTime 4.3 release documentation at https://bit.ly/2lBrbAs.

Other Achievements
55 institutions from 33 countries have filled out our voluntary registration form during the last 12 months. Altogether, we have 290 all-time registrations from 84 countries. Among these, 63 institutions from 42 countries have indicated that they are using UniTime in production.
We can see a steady increase in interest and adoption from literally around the world. We have registered a significant increase of interest in UniTime in Arabic countries. There are a number of institutions that have started using UniTime over the last 12 months or so, or that are in the process of adopting UniTime. To name a few (that we have been directly involved with):

- Walla Walla University, USA
- Turkish-German University, Turkey
- Universidad Yachay Tech, Ecuador
- University of Nairobi, Kenya
- Technical and Vocational Training Corporation, Saudi Arabia (running a pilot)
- Carey School of Business of Arizona State University, USA (evaluation)
- Universitätmedizin Mainz, Germany (evaluation)

We have over 5,000 monthly visits of unitime.org and about 1,000 monthly downloads. The UniTime code base has around 722 thousand lines of code.

The number of outside source code contributions is still low. But there is an increase in institutions that have sponsored or are sponsoring development of particular features and improvements in UniTime.

We have presented at the Ellucian Live 2017 conference about Purdue’s integration of UniTime with Ellucian Banner and DegreeWorks. Just like last year, we are going to have a workshop and a couple of presentations at the Open Apereo 2018 conference.

An international course timetabling competition is going to be announced at the PATAT 2018 conference this August and co-organized by the UniTime team. The challenge is to build a solver for a course timetabling problem very similar to the one UniTime is using. This will allow the competitors to compare their algorithms on real-world instances from institutions around the world. So far, we have 10 institutions from 5 continents that have agreed to share their course timetabling data in an anonymized form. The goal of this competition is to promote research in this area as well as to create realistic benchmark data instances for the research community to use.
uPortal

Summary
uPortal is the leading open source enterprise portal framework built by and for the higher education community. The platform itself is complemented by a wide variety of projects that make up the greater uPortal Ecosystem. This last year saw the introduction of the uPortal Ecosystem Intake Process which makes it even easier for institutions to start collaborating with others at a very early stage when developing complementary services. Institutions can also contribute to the project through the uPortal Supporting Subscription program.

The project continues to show healthy activity. Code was delivered with over 97 releases of projects within the uPortal ecosystem. The ecosystem grew with 1 project successfully exiting the incubation process and 4 new projects entering the intake process. The development community added 1 new committer and 7 new contributors this last year, bringing the total number of active contributors to 18. Of particular note is increased contributions from the French community through submissions to the intake process and French translations of uPortal documentation.

Engagement opportunities for the greater community included 5 calls or webinars, 2 in-person meetups, 16 conference presentations, and over 1,350 discussion list posts. Google team drives have been created to help with collaboration. The Sustaining Subscription program grew by 1 to a total of 3 with annual revenue of $26,000. In the year to come, we see an opportunity to achieve critical mass in sustaining subscription numbers and revenue to enable us to convert those funds into an exciting effort advancing the project.

Software milestones
Releases
Include number, type, and latest version (e.g., one minor, three patch, 2.2.3)

Counting intook / incubating / in-ecosystem software product releases: 97 total releases.

Releases of Apereo uPortal ecosystem software products (68 total releases):
uPortal: 1 major release (5), 7 patch releases (4.3.2, 5.0.1, 5.0.2, 5.0.3, 5.0.4, 5.0.5, 5.0.6), 1 release candidate (5.0.0-RC1), 13 milestones (5.0.0M4, 5.0.0M5, 5.0.0M6, 5.0.0M7, 5.0.0M8, 5.0.0M9, 5.0.0M10, 5.1.0M1, 5.1.0M2, 5.1.0M3, 5.1.0M4, 5.1.0M5, 5.1.0M6), for 22 total releases.
FeedbackPortlet: 1 minor release (1.2), 2 patch releases (1.2.1, 1.2.2), for 3 total releases.
Resource-server: 2 minor releases (1.1, 1.2), 3 patch releases (1.0.47, 1.0.48, 1.1.1), for 5 total releases.
SimpleContentPortlet: major release (3), minor releases (2.1, 2.2, 3.1), patch releases (2.1.1, 2.1.2), for 6 total releases.
AnnouncementsPortlet: minor release (2.3), patch releases (2.2.2, 2.2.3, 2.2.4, 2.3.1, 2.3.2, 2.3.3, 2.3.4, 2.3.5, 2.3.6), for 10 total releases.
CalendarPortlet: minor release (2.5), patch releases (2.4.2, 2.5.1, 2.5.2), for 4 total releases.
JasigWidgetPortlets: minor release (2.3).
NewsReaderPortlet: major release (5), minor release (4.3), patch releases (4.2.2, 4.2.3, 4.3.1, 4.3.2, 4.3.3), for 7 total releases.
NotificationPortlet: minor release (3.1, 3.2), patch release (3.0.4, 3.1.1, 3.1.2, 3.2.1), for 6 total releases.
WeatherPortlet: 2 patch releases (1.1.6, 1.1.7).
WebProxyPortlet: 2 patch releases (2.3.1, 2.3.2).

Releases of intake/incubating uPortal ecosystem software products (29 total releases):
uPortal-home: 2 major releases (7, 8), 6 minor releases (6.5, 6.6, 6.7, 7.1, 7.2, 8.1), 5 patch releases (7.0.1, 7.0.2, 7.0.3, 8.1.1, 8.1.2), for 13 total releases.

uPortal-app-framework: 5 major releases (5, 6, 7, 8, 9), 5 minor releases (4.1, 5.1, 5.2, 6.1, 9.1), 6 patch releases (5.2.1, 6.0.1, 6.0.2, 6.0.3, 9.0.1, 9.0.2), for 16 total releases.

Releases of supporting, non-Apereo software products:
  - rssToJson:
  - personalized-redirection:
  - rest-proxy:
  - tcrypt:
  - KeyValueStore:
  - lti-proxy:

uPortal Ecosystem intake/incubation

1 project graduated
uPortal Home

4 projects entered
uportal-setup-scripts
Soffit-kotlin-example
ESUP-filemanager
uPortal-web-components

Security vulnerabilities handled
1 security vulnerability addressed:
2017-09-26 Feedback portlet injectable fixed in Feedback Portlet 1.2.1 (Aaron, Drew, ChristianM)

Community development
Documentation
Additional documentation for uPortal and uPortal-Start has now been translated fully into French, showing our close relationship with the Esup Consortium.

Intake Process
Developed the uPortal Ecosystem Intake Process 1 and created uPortal-contrib Github organization as a place to host projects upon intake.

Collaboration tools
Created uPortal Community and uPortal Steering Committee Google team drives.
UX research sharing

Committers
On Jasig/uPortal: Active committers (14) : (indicate which are new) (1 new)

New: Jim Helwig (2017-07-19)
5 additional people are committers emeriti.

1 https://www.apereo.org/projects/uportal/uportal-ecosystem-intake-process-easy-onramp-collaboration
Contributors
In Jasig/uPortal, 18 contributors (down 3 = 14% from prior year):
Drew Wills
Christian Murphy
Benito Gonzalez
Chris Beach
Andrew Petro
Brandon Powell
Christian Cousquer
Colin Campbell
Mairi Fraser
Allan Jackson
Nisith Dash
Corey Rowe
Jonathan Tran
Josh Brudnak
KaJuan Johnson
Ludovic Auxepaules
Gary Roybal
Timothy Vertein

Of these, 7 are new contributors (first contribution is since May 1 2017) (down 2 = 22% since last year)
Chris Beach
Colin Campbell
Mairi Fraser
Allan Jackson
Nisith Dash
Josh Brudnak
KaJuan Johnson

Supporting Subscription Subscribers
We gained 1 addition supporting subscription subscriber, bringing the total to 3 with current annual revenue of $26,000 and a fund balance of $51,000.

Current uPortal Supporting Subscribers:
University of Wisconsin-Madison - uPortal Champion
Oakland University - uPortal Booster
Brigham Young University - uPortal Friend

Community engagement
Calls or webinars
11 uPortal Steering Committee meetings (closed)
2 webinars
3 Unicon uPortal open source support briefings

Meetups
uPortal Collaboration days at Open Apereo 2017
uPortal Developer Days at UW-Madison in December 2017
2.5 days
28 attendees (18 in person, 10 remote)
https://goo.gl/3VQ8UB

List subscribers/posts
Uportal-user: 438 subscribers, ~720
Uportal-dev: 259 subscribers, ~659

Presentations
15 uPortal-related presentations at Open Apereo 2017
1 presentation at ESUP-Days #25

Challenges
CVEs are prohibitively difficult to acquire. This limits effectiveness of communication about security.
We do not have an effective way to measure adopters.

Potential opportunities
Opportunity to generalize security handling and CVE provisioning at Apereo Foundation level. For limited additional effort beyond what uPortal would need to do to solve these problems locally, Apereo could be adding value to CVE numbering and security handling Foundation-wide.
Birth of intake, contrib, ecosystem, and attic concepts and processes sets the stage to more clearly welcome, characterize, and communicate about projects in the uPortal ecosystem.
Achieving critical mass in sustaining subscription revenue to convert those funds into effort advancing the project.
Adopt and transition to Discourse for superior forums solution.
Socialize project practices with other Apereo projects for consideration.

Xerte

The Xerte project celebrates an important milestone this year, as it is ten years since we first released Xerte Online Toolkits, back in April 2008. So much has changed since we began this work that it really is incredible to reflect on how far the project has come: the software is used in hundreds of institutions around the globe, and the user and developer communities continue to grow. Xerte Online Toolkits is now a highly mature piece of software, firmly embedded in the learning technology landscape.

The last twelve months have seen the software continue to mature. We have put out two releases, 3.5 and 3.6, bringing a number of significant new features and making the software easier to use. See the release notes at https://xot.xerte.org.uk/play.php?template_id=81, and we've enjoyed the help of more contributors adding to the development effort. The team continue to work hard at striking the right balance between ease of use, and powerful features: we have added significant enhancements to themes and made it easier than ever to customise the look and feel of the content produced; added a number of new templates for creating new types of interactive content and made a number of enhancements to the interface. There has been a lot of work around tracking, and Xerte Online Toolkits now boasts a very rich feature set around xAPI:
the Apereo community has been invaluable in helping us to progress this work, and Xerte is well positioned in the ‘next generation learning environment’ work progressing in the wider community.

We have had a presence at Open Apereo, and the Apereo Africa events this year, and are in the final stages of planning for our tenth anniversary celebration event to be held in Nottingham at the end of June.
## STATEMENT OF ASSETS, LIABILITIES AND NET ASSETS

### ACCRUAL BASIS METHOD OF ACCOUNTING USED FOR FEDERAL INCOME TAX PURPOSES

AS OF DECEMBER 31, 2017

<table>
<thead>
<tr>
<th>ASSETS</th>
<th>LIABILITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net Assets at end of year</strong></td>
<td><strong>Change in Net Assets</strong></td>
</tr>
<tr>
<td>Receivables $15,047</td>
<td>Prepaid and Other Current Liabilities $20,561</td>
</tr>
<tr>
<td>Other Current Assets $125,798</td>
<td>Unearned and Prepaid Revenue 28,295</td>
</tr>
<tr>
<td>Total Liabilities $32,216</td>
<td>Other Activities 1,820</td>
</tr>
</tbody>
</table>

### Foreign Currency Gains and Losses

- **Interest Expense**: $72,158
- **Other Income**: $60,008
- **Interest Income**: $4,473
- **Non-Operating Activities**: $77,507

### Change in Net Assets from Operating Activities

- **Operating and Supporting Expenses**: $4,473
- **Total Support and Revenue**: $322,216
- **Total Assets**: $332,440
- **Payables and Other Current Liabilities**: $322,216

### Operating and Supporting Expenses

- **Administration Expenses**: $77,507
- **Continuing Education**: $4,473
- **Legal Expenses**: $12,274

### Total Support and Revenue

- **Revenue**: $332,440
- **Other Income**: $60,008

### STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS

FOR THE YEAR ENDED DECEMBER 31, 2017

<table>
<thead>
<tr>
<th>Support and Revenue</th>
<th>General</th>
<th>Gifts</th>
<th>Opereant</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue $332,440</td>
<td>$136,915</td>
<td>$121,892</td>
<td>$41,817</td>
<td>$280,505</td>
</tr>
<tr>
<td>Total Support and Revenue $332,440</td>
<td><strong>$136,915</strong></td>
<td><strong>$121,892</strong></td>
<td><strong>$41,817</strong></td>
<td><strong>$280,505</strong></td>
</tr>
<tr>
<td><strong>TOTAL ASSETS</strong></td>
<td><strong>332,440</strong></td>
<td><strong>153,067</strong></td>
<td><strong>53,615</strong></td>
<td><strong>482,502</strong></td>
</tr>
</tbody>
</table>

### Total Net Assets $10,224

**TOTAL ASSETS AND NET ASSETS** $332,440

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**NOTE**: All disclosures required by the income tax basis of accounting are included.