

# Sun and Nuventive



## e-Portfolios for Colleges, Universities and Secondary Schools Worldwide



More and more, e-Portfolios are being talked about by educators and administrators as “the next big thing,” or “just around the corner.” While the concept of portfolios can be traced back to ancient Greece, the meaning of the term and its application have evolved rapidly over the last few years.

Digitally or physically, portfolios are simply organized collections of information that represent what a person has learned over time, how they have reflected on what they learned and how they chose to present that information. Although today’s electronic portfolios share many of the core themes of the centuries old concept, the power of the technology has dramatically expanded the potential applications beyond what students have been using for centuries.

E-Portfolios represent a reaction to fundamental shifts in technology, learning, and the needs of both learners and teachers. An increasing amount of student work is now being done electronically and more emphasis is being placed on lifelong learning. Students, educators and parents are also looking for better ways to determine the effectiveness of learning over time.

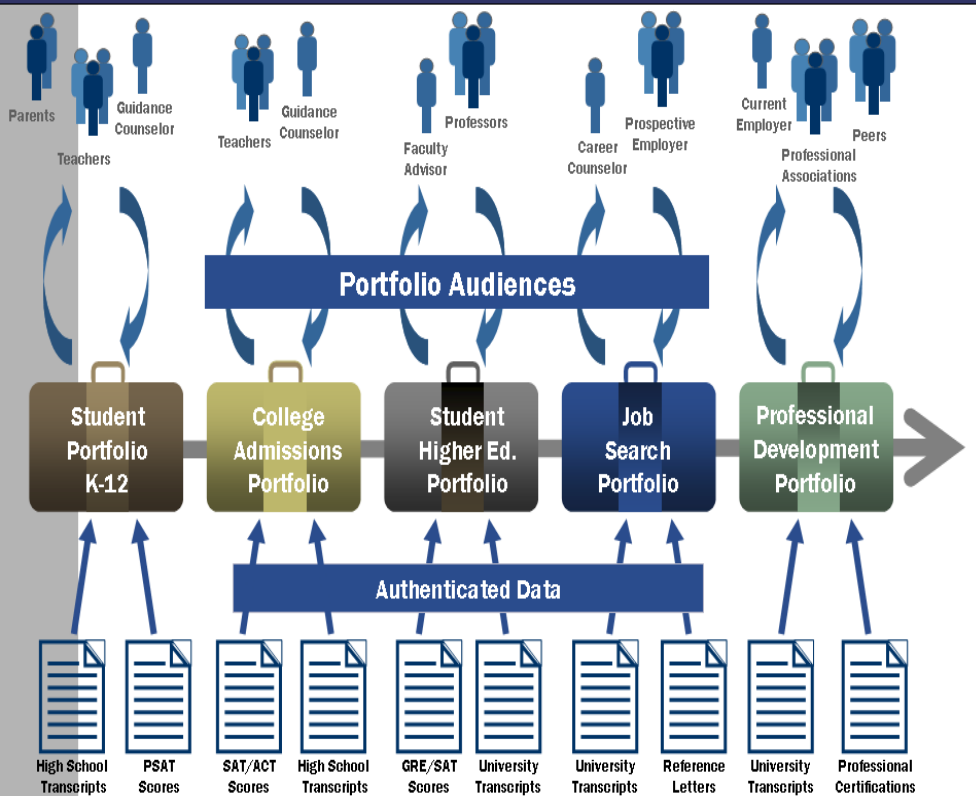
Sun education partner Nuventive, headquartered in Pittsburgh, Pennsylvania, is a leader in the field of e-Portfolios. Its mission is to provide students, educators and organizations with the tools and services they need to effectively examine, manage, improve and demonstrate achievement throughout the lifelong learning process.

Having worked with a wide range of academic institutions and professional associations such as Western Michigan, Plymouth State, University of British Columbia, and the European Institute for e-Learning, Nuventive has the institutional experience and expertise in developing, individual, program, and enterprise-wide electronic portfolios to provide value to the most sophisticated of customers.

### The Value Proposition

With collaborative technologies at the forefront of institutional interest in e-Learning and content management today, tools such as Nuventive’s iWebfolio e-Portfolio solution add an important component to school’s efforts to promote lifelong learning and an on-going relationship with the institution. iWebfolio allows a student to create an unlimited number of personal views and perspectives

### Life-Long Value Chain for ePortfolio Applications



and to dynamically share them with faculty, peers, admissions departments, colleagues, and potential employers.

What sets e-Portfolios apart from other methods of self-representation, such as resumes and vitas, is the individual's ability to comment, add reflections, and share their insights about each piece. When given access to the e-Portfolio, faculty members and others can review, rate, and provide feedback to the individual about his or her work, creating an enriching, collaborative learning experience.

E-Portfolios also integrate well with other critical campus applications, such as student information systems or learning management systems (LMS), which tend to be institution-centric, to enhance the entire learning environment. "None of these other systems provide a vehicle for a learner-centric view," said Malcolm Hobbs, vice president of marketing and business development at Nuventive. "While the e-Portfolio provides many points of integration with an LMS for passing individual data back and forth, the true value of the e-Portfolio may be in the student's reflections on previous work, or feedback from faculty or peers. It's not just that you passed the course, but what did you learn and what evidence do you have to back it up."

### Nuventive's Competitive Standing

One of the critical differentiators between Nuventive and others in the industry is the company's innovative views on the issue of data ownership. Many e-Portfolio tools assign ownership to the institutions by default because they are behind-the-firewall, institution-centric solutions. But this does little to promote e-Portfolios as a longitudinal solution for presenting an individual's lifelong learning. When a student graduates from the school, both the student's email and e-Portfolio are often de-provisioned. And from a faculty and staff perspective, it's difficult to use the e-Portfolio as a professional development tool when your

employer owns the data.

Nuventive believes strongly that e-Portfolios should be hosted by a third party, so students, faculty, staff, and other individuals have total control over who has access to the portfolio and which of perhaps dozens of presentational perspectives the viewer sees. In this model, individuals grant rights to the institution to access portions of their private data securely, so that consolidated views at the institutional level can be achieved.

This collection of data at an institutional level has made iWebfolio and complementary product TracDat, an integral part of the instructional effectiveness self-examination process for many colleges. "From an institutional perspective, e-Portfolios support quality assurance, institutional accountability, and particularly in the United States, accreditation efforts," stated Hobbs. "Accreditation agencies won't approve a process where a lot of documents are created and handed off to the agency at the last minute for the purpose of passing the accreditation. They are increasingly requiring that an overall strategy and processes are in place, and that there is demonstrated support for, and evidence of, ongoing performance improvement."

### Why Nuventive on Sun?

As a hosted service needing to provide non-stop availability, Nuventive's choice of a hardware, software, and support partner was crucial. Nuventive chose Sun Microsystems for a number of reasons, chief among them reliability and availability. "Nuventive has been very pleased with the reliability of Sun hardware," said Gary Choban, Nuventive's Chief Technology Officer. "In 4+ years we have had zero problems with hardware failure. In a facility that services customers 24/7, this is critical."

Nuventive's latest e-Portfolio product, iWebfolio Version 3, is an enterprise Java application built using a service-oriented architecture. The application leverages a

number of Java standards such as Java Server Faces and JAAS, Java Enterprise Systems' (Java ES) tightly-integrated Identity Management, Web Server, and Application Server components, and best-of-breed open source projects such as Spring and Hibernate, iWebfolio is hosted on four high-powered Sun servers, three V880's and one V240, running the latest Solaris 10 operating environment, and uses one terabyte of storage on a Sun StorEdge T3. Nuventive's middleware stack includes JBOSS and Tomcat and they use Apache for simple round robin load balancing and Oracle for the database.

Both companies' commitment to Java-based open standards means academic customers can build modular infrastructures using combinations of best-of-breed services, and integrate them together to meet specific campus requirements in broad, service-oriented architectures.

### Conclusion

With e-Portfolios, individuals now have the tools and resources to present self-advocating information and materials in a well-organized, structured way. They're not just a higher education or primary/secondary application, but a cultural application. Nuventive's iWebfolio is a powerful tool for any individual as it provides structure and a venue for reflection on the accomplishments of a lifetime of formal and informal learning.

In an educational setting, iWebfolio gives students the opportunity to meet the needs relevant to their profession. The development of an e-Portfolio encourages faculty-student mentoring, peer-supported active learning, and continuous reflection of professional maturation. The process of creating, improving, and maintaining an e-Portfolio encourages continuous self-reflection and acquisition of new skills and technological proficiency.