



The Long Wait: Why It's Time for Higher Ed to Embrace Automation

No other segment will benefit more than education, where rote work abounds.



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WHILE THE PANDEMIC INTRODUCED A NEW appreciation for all things digital, its close cousin, automation, hasn't gained nearly the same renown. And it should. So often in digitally transformed activities, as people interact with bits and bytes, the processes get automated and improved too. In retail, customers still put their potential purchases in a cart; but when they change their minds at the checkout, nobody has to plod across the store to place the discarded goods back on the shelf. In government, citizens still file their requests; but a mapping app can help road maintenance create the most efficient route for filling the potholes.

Then there's education. While other sectors have begun to reap the rewards of enterprise automation in dramatic ways, education is lagging. Yet, I'm convinced that no other segment will benefit more. Nothing highlights the advantages of automation like rote work, which abounds in higher education IT.

The 3 Flavors of IT

What's unique about education from any other kind of organization is that the typical institution has central IT, of course, but also instructional IT and research IT. If I'm in central IT and I'm standing up an HR application, my goal is to put that system in place with the expectation that it will run forevermore. IT's job is to keep it running.

But in instructional IT, I may be standing up a classroom environment that is only going to last a semester or a lab that's going to last a couple of weeks. Then I need to tear it down and stand up a brand new one the next time that class or lab is offered.

In research IT, I'll need to spin up hundreds or thousands of nodes to process data for astronomical photography, chemical analysis or whatever the research problem is. When the processing is done and the results are generated, I stop it and scale it all back down again.

There's a temporary nature to so much of what education

encompasses and the many systems it relies on. And that's where automation can really make a big difference.

Finding Automation Success

Automation success, however, depends on meeting the needs of its three players: the individual, the team and the enterprise.

Progress always starts with the individual. After all, if the edges of your organization don't see a benefit, automation efforts will fail: "What am I going to get out of this?" That's where a lot of apprehension and misunderstanding come from, because too often, people

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hear the word, "automation," and they think layoffs are sure to follow. They don't think about the real reason for automation – taking the repetitive toil out of their jobs.

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have to focus on doing the same work over and over.

At the team level, when you enable your IT crew to automate with the right tools, you're documenting and codifying their institutional knowledge too. That's important as schools face the prospect of losing hordes of baby boomers and Gen Xers – and their hard-earned experiences – to retirement. By automating the day in/day out processes, anybody you bring in with the basic knowledge of the job will be able to get up to speed much more quickly. The adoption of automation technologies provides a common language for enabling teams to communicate with each other.

At the enterprise level, automation reaches across silos. As it stands now, too much in IT takes weeks instead of the hours it should require because the various stages of the work are held up when somebody isn't at their keyboard. When you automate repetitive tasks, and reach out to others with their own automations, you can chain those tasks together into a "workflow." You don't need everybody sitting at their desks at the same time in order to achieve a fast response.

Innovation Over Rote

The use of a solution such as **Red Hat Ansible Automation Platform** makes automation – that chaining together of

various tasks – something IT people innately understand. Ansible uses plain text and data elements that match whatever software IT is interacting with. It's not compiled; it's easily readable and reviewable. And the automation will continually improve as updates – a patch, a bug fix, an optimization – are added to links in the chain.

The next time a lab needs to be set up or a research project receives its funding, the IT organization will be ready to kick into action, even as someone in the workstream takes a day off to care for a sick child or a team has to deal with a cybersecurity crisis. By removing the rote work, automation enables people. Each person who may have been sitting around doing those repetitive jobs is now solving new problems and challenges – innovating – for which the human brain is aptly designed.

Damien Eversmann is Red Hat's chief architect for education for the North America Public Sector. Most recently, Damien has traveled the country with Red Hat to share the news of digital transformation. He has a penchant for teaching and demonstration and his expertise includes DevOps culture, application modernization, enterprise automation and the intersection of history with tech.



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