

**StAART**

Student Administration  
Agile Release Train



# Going agile in student administration projects

The view from the business side

# Overview

- 5 minutes to set the scene
- 10 minutes about the theory of agile
- 15 minutes of the reality of agile
- 15 minutes of discussion (or early morning tea)

# RMIT to scrap \$47m software system **THE** **AGE**

INDEPENDENT. ALWAYS.

February 28 2003  
By Misha Ketchell  
Higher Education Reporter

Senior managers at RMIT University botched virtually every aspect of the implementation of a \$47 million software system that collapsed last year, an Auditor-General's report has found. The system will have to be scrapped.

The scathing report, ordered by Education Minister Lynne Kosky last year, found RMIT did not manage the project appropriately, had a poor implementation plan, little senior management involvement, poor corporate governance and a lack of accurate documentation.

The malfunctioning system corrupted financial records and led to delays in issuing student cards and billing of international students.

Auditor-General Wayne Cameron also said that international student enrolments at RMIT dropped by between 6 and 18 per cent last year as a result of the debacle.

Mr Cameron warned that financial aftershocks might continue.

Mr Cameron revealed that Ms Kosky had last year ordered the university not to tender for a company to replace the system until the extent of the problems could be established.

The university has since decided it is not cost-effective to try to patch up the system.

RMIT vice-chancellor Ruth Dunkin yesterday said that by September this year the university would choose a new supplier.

The three contenders are Peoplesoft, the provider of the existing system, Callista software, which was developed at Deakin University, and Technology One, from Queensland.

Professor Dunkin said yesterday that she accepted that documents had been substandard but she rejected criticism that she had not played a large enough role in the software implementation.

"The project reports that came through to me and then went on to the council showed that the project was on time, on budget and meeting its milestones," she said. "We all thought that this project was actually going OK."

Professor Dunkin said certain staff had been held responsible for the system's failure, but she would not say how they had been held responsible or reveal who they were.

Opposition education spokesman Martin Dixon yesterday said the report was a damning assessment of the university's lack of planning, governance and senior management.

"It is no wonder RMIT's finances are in bad shape, with \$47.2 million spent so far on the project - 3.7 times the original budget. Every single stage of this project has been mismanaged, leading to the dire situation RMIT is now in," he said.

He urged Ms Kosky to have the Auditor-General maintain a watching brief on the system.

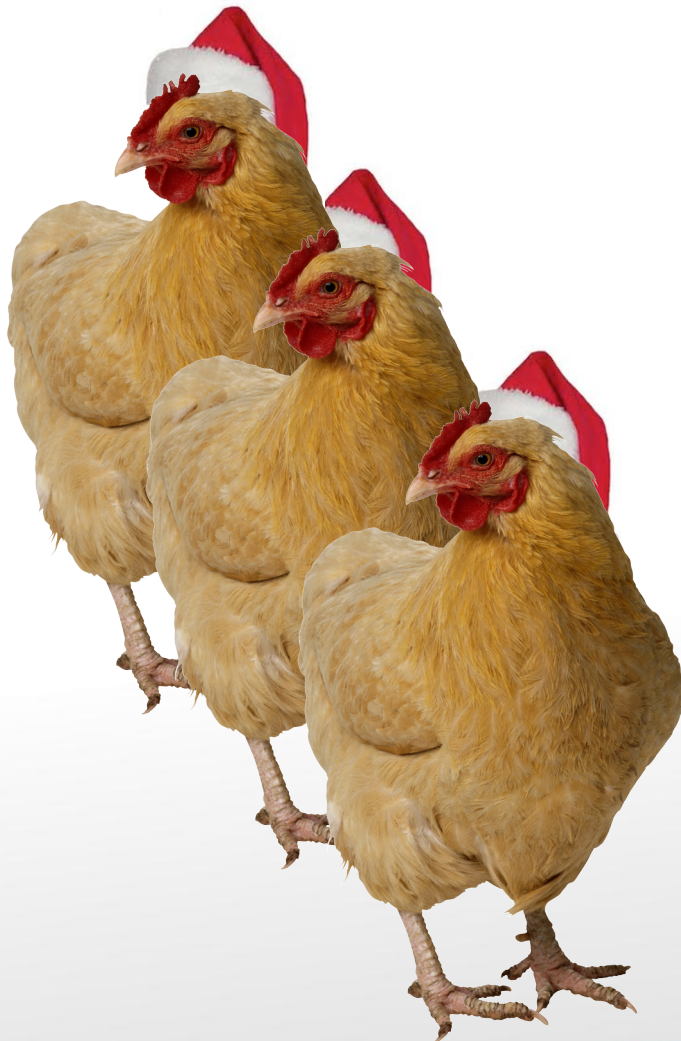
Ms Kosky said she had told RMIT it would be given 12 months to get its finances in order.

"I expect to see some major changes to the way the institution organises its finances and also that it fixes all associated problems with the Academic Management System," she said.

An RMIT spokeswoman disputed Mr Cameron's finding that international student numbers had dropped, saying they had risen by 8 per cent last year.

**Seven years of lobbying, pleading,  
grovelling, writing business cases ...**

# All our christmases ...



**\$20  
ml**

All our christmases ...



# Student administration projects

- Global admissions
- Global enrolment
- Global graduation
- Student invoicing and debt management
- Program & course information management

And then we went  
~~‘~~agile’



# SCALED AGILE ACADEMY



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*has successfully completed the requirements of the*

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Chief Methodologist  
Scaled Agile Framework®

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Scaled Agile Academy



# We moved from waterfall ...

## **BEFORE COMES:**

Requirements,  
Requirements,  
Requirements!

Then 150 page  
business case

## *Secret IT business:*

- Plan
- Design
- Build
- Integrate
- Test

## **AFTER COMES:**

UAT  
Communicate  
Train  
Manage  
change  
Justify the  
spend

But wait, we've missed an important process here ... where does the student accept?

Sorry, it's not in the scope document you signed in blood 14 months ago

# To agile ...

## ***BEFORE COMES:***

Analysis,  
backlog,  
prioritisation

## ***ON THE TRAIN:***

- Build
- Integrate
- Test
- UAT
- Showcase

## ***AFTER COMES:***

Communicate  
Train  
Manage  
change  
Plan the next

## ... and the cult of agile

- New language
- Rituals and ceremonies
- More meetings
- More visibility, more control

# Scaled agile framework

## Leading SAFe™

Leading the Lean|Agile Software Enterprise  
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# Basis of agile

- Incremental means faster delivery of software
- Faster delivery means the business can use it quicker
- Prioritise, develop, review
- Ongoing collaboration between IT and business owners

# Key concept: Cadence

- Formal ‘time-boxing’ of development activities
- PI (release): 12 weeks, 4 a year
- made up of 6 iterations (sprints) of 2 weeks
- Each PI has a 2-day planning session & ‘inspect & adapt’
- Each iteration has planning & a showcase



# Key concept: Epics, features, stories

Chunks of work

- EPICS (across PIs)
- FEATURES (within a PI)
- STORIES (within an iteration)



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# EPIC

Improve student invoicing



# FEATURE

Enhancement to invoice presentation

*As an administrator*

*I need to show adjustments & concessions on the invoice*

*So that students can understand the information and make fewer contacts*

# EPIC

## Improve student invoicing



# FEATURE

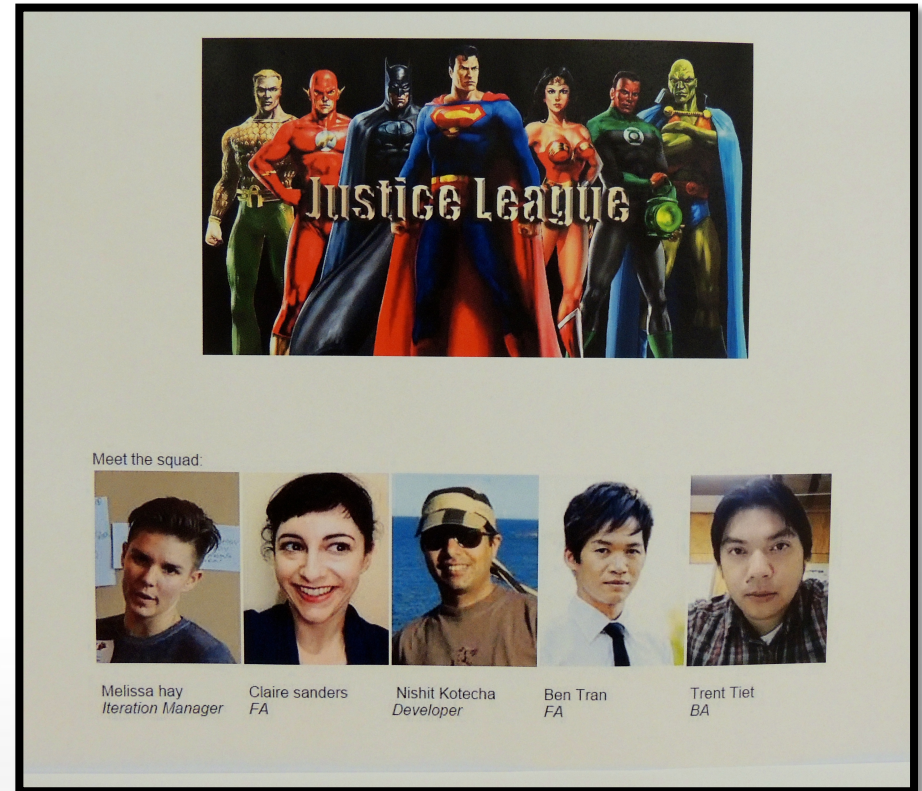
## Enhancement to invoice presentation

# STORY

- Display concession and HELP loan information
- Redefine charges calculation
- Display adjustments amount in Invoice Summary
- Display adjustments section in Account Statement
- Update/review non-critical existing SFS SQL validation
- Display special characters in PDF

# Squad\*

A group of people who do the nuts-and-bolts technical work (define, build & test) of delivering stories and features.



## Global Graduation squad

\*a.k.a. scrum

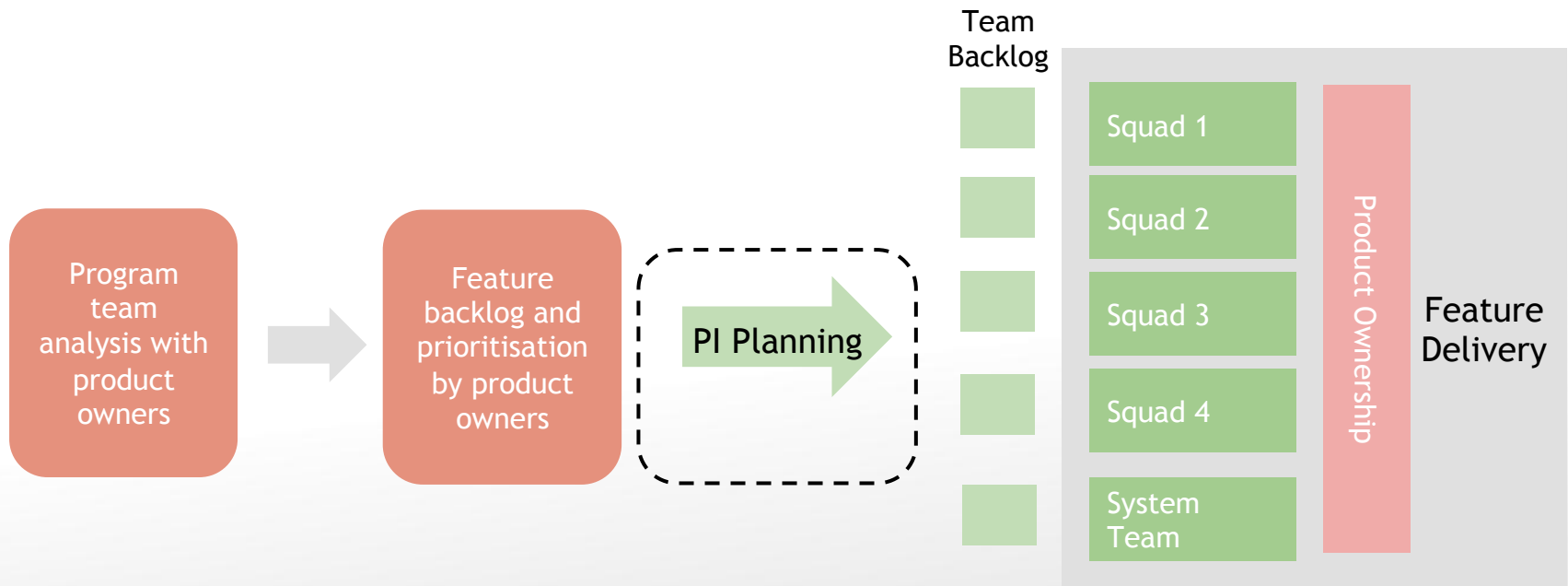


7000 graduate in a single ceremony, managed on a 2001 Access database developed as a temporary solution by a HEW 6 staff member

# PI planning & delivery by the agile release train

*Feeding the train*

*On the train*





# The reality: what works well

- We fix things sooner
- It works well when the solution is known
- There is transparency through showcases
- All squads meet with the business regularly
- There is much better trust





# The reality: challenges

- Time commitment for business owners
- Language excludes people
- It's not really incremental
- 'Product ownership' is complicated in a university
- We haven't got the backlog right yet

*“The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.”*

- Agile Manifesto Principle #6

# Being agile in a waterfall culture

- Governance of projects assumes you can decide deliverables 12+ months in advance
- Reporting is not aligned with agile cadence
- Delivery of business ‘benefits’

# SAMS

Transcript Re-write

*PSI2*

Improve SoA precursor processes

*PSI2*

Provisional Completions Process

*PSI2*

RIC Report

*PSI2*

SMS Service Analysis / Notification Framework

*PSI2*

Academic Progress reports  
(MW: 2516)

*PSI2*

Point n click to SAMS interface  
(MW: 2550)

*PSI2*

SAMS Query  
RMIT\_SR\_CLASS\_SCHEDULE to  
output to special server (VSM: 2168524)

*PSI2*

SAMS Process Improvements

*PSI2*

Campus Mobile

*PSI2*

Student Financial Configuration for 2015

*PSI2*

Enrolment enhancements

*PSI2*

Student Grade Process Improvements

*PSI2*

# Managing change

- SAFe is about software development: our work is as much about process change
- Agile assumes product owners will have authority to make all decisions
- There is not always a single product owner



Collaboration is better than before

# Who is driving the bus?



- Feature owners vs system owners vs project owners vs VIPs
- Who decides business value?
- What do you do with new priorities after priorities have been agreed?





# PROGRAM RISKS

RESERVED	OWNED	ACCEPTED	MITIGATED
STABILITY AVAILABILITY	FULL OUTAGE REQUIRED (Full Team)	WHAT IF IT IS NOT THE ACCEPTED SUPPORT LEVELS?	
PERFORMANCE AVAILABILITY	SMALL SCALE EXPERIENCE AVAILABILITY	FLEXIBLE ENLIGHTENED MODEL (Changes)	
	SIM CONCEPT REQUIREMENTS (REV)		
	Are there NOT SUPPORT LEVELS IN ROAD		
	DO SUPPORT LEVELS EXIST?		
	HOW TO IMPROVE AVAILABILITY SIT		

# PROGRAM IMPACTS

PROGRAM IMPACTS
Little Data Support?

Is documentation over-rated?

# Enrolment

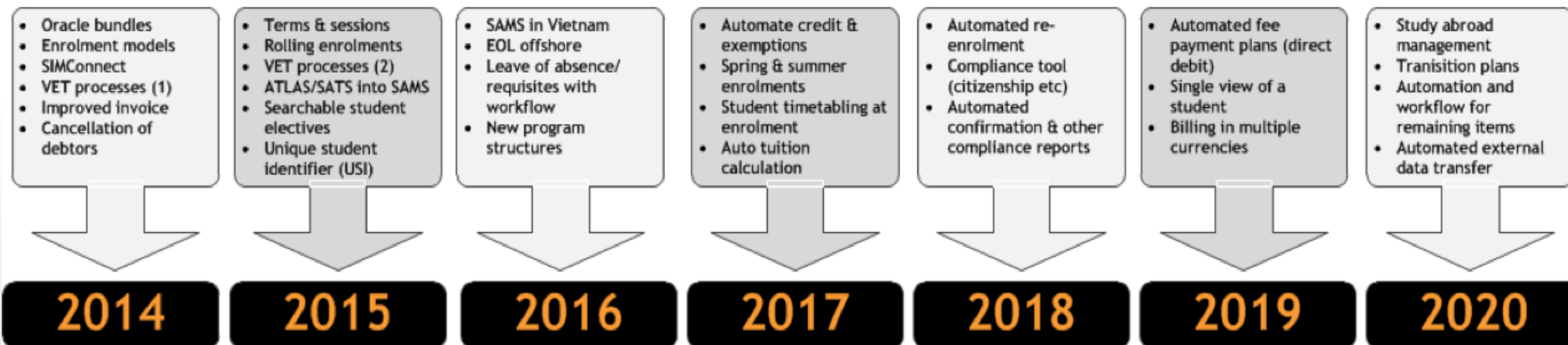
Enrolment in its broad sense encompasses registering, varying and maintaining the enrolment of a student including personal data, program allocation and course selection, fee type, student timetabling, invoicing and payment of fees and other charges, compliance management (eg eligibility for government-subsidised places), transfer of data between institutions, leave of absence and cancellation of enrolment.

## ARG Vision for the future

By 2020, management of enrolment, records and fees at RMIT will have the following characteristics:

- Streamlined program structures will provide clarity for students and simpler configuration.
- All enrolment will be done online through any type of device.
- Students will choose session times as they select their classes at enrolment.
- Re-enrolment in fixed programs will be automated: students only need to confirm course choice and class times where relevant.
- Credit transfer and exemptions will be automatically applied to enrolment once approved at admission.
- Searchable student elective information will be contextualised to the student's current program/location/academic calendar/delivery mode.
- Fee discounts for early enrolment or re-enrolment can be configured.
- Confirmation reports for VET students will be generated automatically once criteria are met.
- Pre-requisite checking will provide warnings to students and course cancellation if no action is taken.
- Student applications for fee waivers will be assessed against pre-defined criteria or referred to the Academic Registrar.
- Automated alerts will be sent to students with debt: enrolment will be cancelled if unacceptable debt not paid by final due date.
- Automated messages will advise program manager when a student has cancelled enrolment.
- There will be comprehensive electronic storage of all student records with different levels of access to different categories of information.
- Students have a 'what if' tool to calculate fees according to course choice.
- Students will be able to pay fees online or arrange payment plans using direct debit.
- There will be scheduled electronic exchange of information between selected institutions for exchanges and cross-institutional enrolments.
- Students will be able to authorise automated reports of results/fees to employers, parents or sponsoring organisations.
- Self-service scanning of citizenship documentation or concession eligibility documents with security controls will attach to electronic student file.
- Students will apply online for enrolment variation with automated referral where authorisation required, and outcome advice.
- Students will apply online for leave of absence with automated referral for programs that require approval.
- Where student transfer to another RMIT program or where a program is changed, a transition plan will be generated and a new program enrolment will be generated, with credit applied.
- There will be an interface with OUA enrolments to ensure consistent information between institutions.
- Students will be able to register for study abroad or exchange online and data will be exchanged with partner institutions through secure file transfer.

## ARG 2020 ROADMAP: Actions required each year to achieve vision



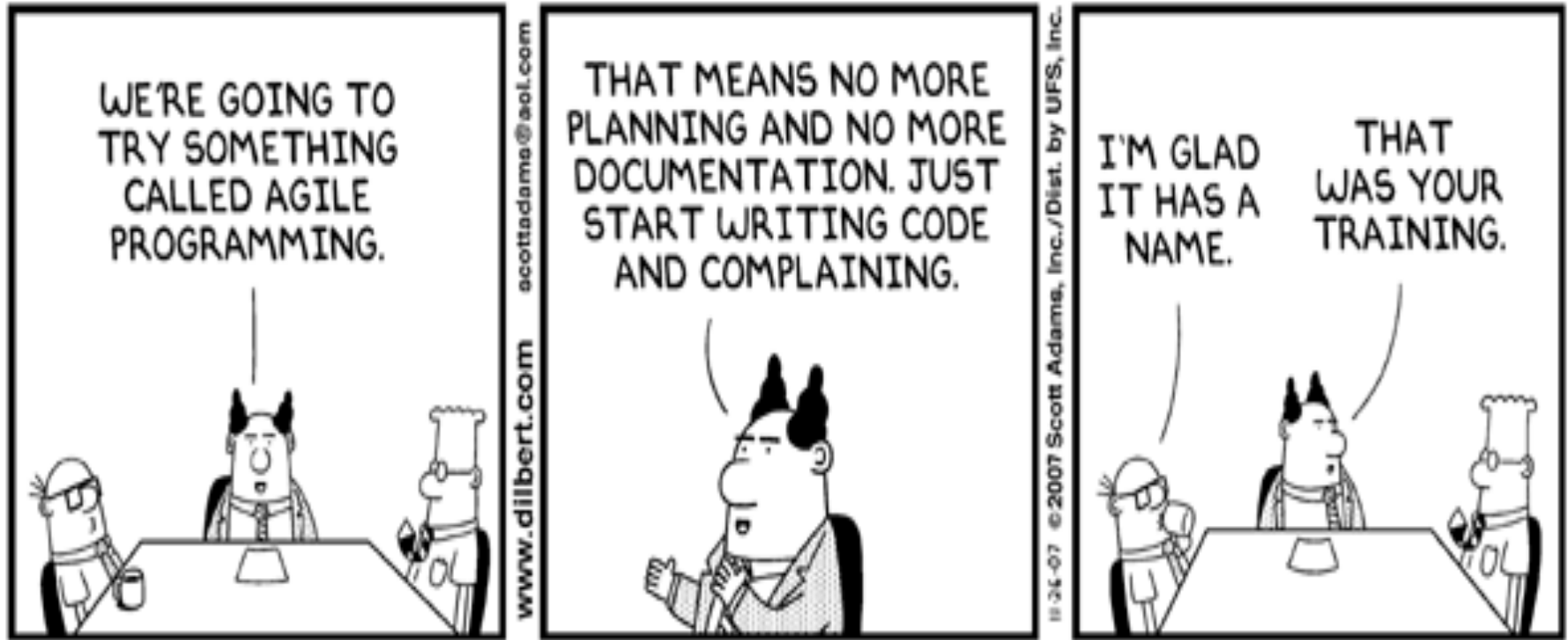
# Once upon a time ....



# Summary

- It's new
- It's more work than we had imagined
- We haven't got it right yet
- It has real potential to help us deliver on our student administration roadmap

# Questions and suggestions?



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