

Silos Exercise v2.0 – Facilitator Notes

The aim of the silos exercise is to get participants to understand the real-world challenges inherent in moving towards a coherent internal identity strategy within their own institutions.

In the exercise we role play a prototypical university and try and unpack which departments are holding what information. The university modelled here is based on our experience of the worst traits of two real universities. We've tried to make the department names and roles generic and representative of a broad range of different types of institutions in different countries.

There are two forms of the exercise: a basic form that models only the typical administrative roles of a university, and an expanded version that introduces a inter-university virtual organisation.

Setting up the exercise

Start by splitting the group of participants in two halves: departments and consultants.

Departments

The first half should be subdivided into six (or seven for the extended version) roughly equal sized groups. Each group represents a department in our university, and should be given one of the information sheets. It is important that each information sheet is only seen by one group, and that they don't know what is on other groups' sheets.

The participants should be encouraged to get into character and role play their department's staff. They can have fun with this – people with bad relationships can come off as argumentative; people with good relationships can be overly helpful. They should feel free to badmouth their colleagues where appropriate.

Consultants

The remaining half are external consultants contracted by the IT department to conduct an identity audit of the institution. They will report back to IT, but are otherwise independent. You should give them a verbal briefing and explain that their role is to visit each department, talk to the staff, and try and ascertain three things:

- What are the relationships between the departments?
- What information do they hold?
- Who is the authoritative source?

Running the exercise

You need at least an hour to successfully run the exercise. About two thirds of the time should be used to role play; about a third should be used by the analysts to collate and present their findings. It is useful to reserve 5-10 mins at the end to wrap up.

During the first part of the exercise the consultants should visit departments alone or in pairs. That allows for many consultants to rotate through each of the departments. You may need to time manage this and encourage them to move to the next department.

Once they've completed this, the facilitator should try and build a picture of what information the consultants unpacked – and compare this to the real picture (note that it differs for staff and students.)

Human Resources

You are responsible for all aspects of the university's relationship with its staff/employees. You maintain employee records, and have regulatory reporting obligations. However, you are generally adverse to technology and a lot of information exists only in paper form.

You believe you have a legal obligation to protect employee data, and are reluctant to share it with any other administrative department.

Data

- Employee number (from Salaries/Payroll)
- Given Names (legal identity, verified against an identity document)
- Surname (legal identity, verified against an identity document)
- Date of birth (verified against identity document)
- Marital status
- Job title
- Department
- Start date
- End date
- Email address (gathered from employees, seldom updated)
- Mobile phone number (gathered from employees, seldom updated)
- Home address (gathered from employees)

You only have data for employees of the institution.

Student assistants are not considered employees and are handled directly by Salaries/Payroll.

Because employee numbers come from Salaries/Payroll, you can often only capture new employee data after the first payroll run happens.

Relationships

You have a **good** relationship with Salaries/Payroll, and see them as consumers of the data you provide. You have paper based processes to update salary data. These operate **just-in-time** (i.e. they only need to be submitted before the next salary date).

You have a **bad/strained** relationship with Information Technology, and believe they are very demanding. **You do not trust them with any data. You do not trust any analyst they appoint.**

You have a **difficult but workable relationship** with the Research Office. They often contact you to verify information, which your staff find tedious.

You have no relationship with either the Library or Student Records/ Registrar.

Salaries/Payroll

You are responsible for running the university's salary/payroll systems, and answering any queries from staff regarding they pay. You are very protective of the data you have, believing it to be a legal obligation not to divulge it – even to other administrative departments in the university.

Data

- Student / employee number
- Given Names (legal identity, from HR or form)
- Surname (legal identity, from HR or form)
- Salary
- Income tax number (verified against tax certificate)
- Start date (from HR or department)
- Termination date (from HR or department)
- Email address (institutional, manually collected from some employees)

This data exists for staff as well as students assistants. In the case of students, you gather names on your own form and do identity verification yourselves.

You get a student number from the Registrar, and generate an employee number each time you see a new employee.

Relationships

You have a **good** relationship with Human Resources. You receive paper-based updates of employee information from them, usually just before the monthly payroll.

You have a **reasonable** relationship with Information Technology, and are working with them towards generating electronic payslips that will be emailed to employees. You would like to get email addresses from them, but don't necessarily want to automate the process of capturing them.

You have a **strained** relationship with the Registrar, as you find it difficult to get information about students from them when you need it.

You have no relationship with either the Library or the Research Office.

Registrar/Student Records

You are responsible for maintaining the relationship with the university's students, and are the custodian of all information relating to students. You are responsible for ensuring the accuracy of the data you have, and have statutory/legal reporting obligations.

Data

- Student number (generated automatically)
- Given Names (legal identity, verified against an identity document)
- Preferred Name (students are asked how they would like to be addressed)
- Surname (legal identity, verified against an identity document)
- Birth date (verified against identity document)
- Marriages
- Email address (institutional, received automatically from IT)
- Degree enrolled for
- Courses enrolled for
- Start date
- End date
- Local (home) address
- Cell phone number

You only have information for students.

Relationships

You have a **good** relationship with Information Technology. You make some data available to them automatically, and you receive an email address from them. They are generally quite helpful.

You have a **reasonable** relationship with the Library and would be happy to assist them.

You have a **poor** relationship with Human Resources. You believe their record keeping to be shoddy, and do not trust their processes.

You have a **poor** relationship with Salaries/Payroll because their staff keep phoning yours to confirm the registration status of students.

You have no relationship with the Research Office.

Library

In addition to running the university library, you are the custodian of the university's publications and research output. You run an open access repository where students and researchers can deposit their work.

You are concerned around the quality of your data. You largely rely on information collected directly from your patrons, and you are aware of instances of fraud.

You've been using ORCID for a number of years, and are planning an ORCID integration with your repository system.

You have no legal obligations for data correctness, but as librarians you are fastidious about cataloguing and want data to be as correct as possible.

Data

- Student / employee number
- Given Name (patrons are asked what their preferred name is)
- Surname (patrons are asked what their name is)
- Email address (any [including gmail], supplied by patrons)
- Department(s) – one for staff, many for students representing which courses they are enrolled in. (collected from students/staff)
- ORCID iD (collected from students/researchers depositing work)
- Publication record (only those submitted to the library)

All information is gathered by hand, except for the ORCID iD which is in the process of being automated.

Relationships

You have a **reasonable** relationship with the staff in Information Technology. However you do not see eye-to-eye with their director. As a result, you give very guarded answers when talking to their director and speak more openly to other staff. [Choose one IT person to represent the director].

You have very little relationship with any other department, and largely do your own thing.

However, you are aware of the need to work more closely with the Research Office and to coordinate your activities/the data you collect.

Research Office

You are responsible for collating information about the university's research activities. You maintain a current research information system in which you track projects on the go, grant applications, etc. You assist researchers in submitting grant applications.

You have been informed by one of your major funding agencies that ORCID iDs will be required for all grant applications and you are a little worried about this.

Data

- Student / employee number
- Given Name (supposed to be legal, but often is what people prefer to be called)
- Surname (supposed to be legal)
- Email address (supposed to be institutional, but mistakes happen)
- Department
- ORCID iD (starting to collect, do not understand)
- Publication record
- Grant record

Most information is gathered from forms, and you have a difficult job verifying it.

Relationships

You have a **good** relationship with Human Resources. You often phone them to verify information. However, you wish there was a better way to do this.

You have a **poor** relationship with the Registrar/Student Records. You find them very protective of student data and unhelpful.

You are **frustrated** with the Library because you believe they have information you need and they are unwilling to share it.

Likewise, you are **frustrated** with Information Technology because you see them as cooperating with the Library but not sharing the results of those integrations with you.

You have no relationship with Salaries/Payroll.

You maintain relationships with a number of researchers and research collaborations, as you are responsible for their grant management.

Information Technology

You have overall responsibility for information and communication technologies in the university, and provide end-user support on an institutional basis. You are also responsible for IT purchases, including software and systems. However some departments bypass this and purchase their own systems directly, which you end up having to maintain.

You are frustrated by the slow adoption of new technology in some areas, and generally willing to assist. However you have limited resources – both staff and budget – and so have tended to prioritise those areas that seem willing to engage.

You are concerned about the use of private email addresses, and believe it carries risk for the institution.

You are running this identity management audit because you've been directed to by senior management. However, you believe you are doing an excellent job at managing identity – if only HR would cooperate.

Data

- Student / employee number
- Given Names (legal identity, automatic for students, manually captured from HR form for staff)
- Preferred Name (automatic for students. Sometimes gathered from staff because HR do not have this)
- Surname (legal identity, automatic for students, manually captured from HR form for staff)
- Department (guessed/gathered manually)
- Username (generated from student/employee number)
- Email address (institutional, generated automatically)
- Groups – based on department, role, user requests, etc

You are the definitive source of username and email address, and [want to] consume everything else. However poor, manual data from HR means you have to hand-capture information for staff.

Relationships

You have a **good** relationship with the Registrar/Student Records, and they supply you with automated, high-quality student data.

You have a **poor** relationship with Human Resources. You are short staffed, and believe they are responsible.

You have a **reasonable** relationship with Salaries/Payroll, but believe them to be technophobes who do not want to embrace new technologies.

You have a **complicated** relationship with the Library. Your director hates the Library director, and takes every chance to point out their mistakes. Other IT staff have reasonable to good relationships with Library staff.

You have no real relationship with the Research Office.

Research Collaboration

(Only used in the extended version of the exercise)

You are the principle investigator in a research collaboration, working with colleagues from around the world.

You are an important researcher™ doing important research™ and other people must just make the bureaucracy go away.

Security is important to you because you handle biomedical data. However, it is just as important to you that researchers working with you should not be bothered by unnecessary red tape.

You've heard about federation from some colleagues at a conference, know that it is widespread in Europe, and believe it would help. It would be nice if this consultant were someone who could explain it to you...

Data

Your data requirements aren't specific to the university; they relate to your research group which is a virtual organisation spanning five institutions in three countries. For each participant in your VO, you maintain the following information.

- Preferred Name
- Username (specific to your infrastructure, but usually matching the researchers' own usernames at their home institution)
- Email address
- X.509 certificate
- Virtual Organisational Unit (Group)

The only bit of information you actually create is the virtual organisational unit, which is defined by the PI of each sub project. You wish there was a way to automatically gather the rest of the information from each of the universities you work with.

Relationships

On the face of it you maintain a **good** relationship with the Research Office because you are dependent on them for grant funding. However you actually **resent** them for imposing bureaucratic obstacles on your research.

You employ your own IT staff out of grant money because you believe the Information Technology department are useless. You don't have time to engage with anyone from IT.

All other parts of the university are surplus to your requirements. Oh, except Human Resources. They must pay your staff because the university won't let you do that yourself.