

# ICT256 Knowledge Management Techniques TS 2016

## Assignment 2

**Worth:** 20% of your final grade.

**Due:** Sunday 20 November 2016, 11:55 PM **\*\* note this is an extension to previous date \*\***

**Submit to:** LMS, via the Assignments tool. Submit as a single Word document. Ensure you complete the declaration that is part of the submission process.

You do not need to include a separate cover sheet but you should include your name and student number as part of your document filename. Your name and student number should also be included in the assignment document.

This is an INDIVIDUAL assignment.

In this assignment you are presented with a case study of an organisation that is looking for a knowledge management solution to problems it is facing. Your task is to investigate its knowledge preparedness, identify gaps and weaknesses, and finally to recommend a solution to address its knowledge needs, basing your work around the KDLC that we described in Topic 6.

The steps you will follow are detailed in this handout. You will first carry out the preliminary investigation work of a knowledge audit for the organisation by assessing its maturity in terms of KM, and your own preparedness as investigator. You will then proceed with the knowledge audit by identifying where problems exist and how further information could be gained, and suggest a broad type of solution to address the problem and 'fix the knowledge gap'. Finally, you will investigate further the solutions you have suggested and recommend a suite of tools and techniques that the organisation should implement.

The specific background to this assignment is covered in lecture Topic 6 (KDLC) and the associated practical work for Practical 6, although you will also find the material covered in all of the topics to date and Assignment 1 relevant. You will also have to do some research of your own to acquaint yourself with the subject areas of the case study, and other points that are raised in it.

As usual, when you are referencing sources you should use either Chicago or APA style described at <http://libguides.murdoch.edu.au/Chicago> and <http://libguides.murdoch.edu.au/APA>. See also <http://our.murdoch.edu.au/Student-life/Study-successfully/Referencing-and-citing/>.

You should also read the information on the Murdoch site on Academic Integrity at <http://our.murdoch.edu.au/Educational-technologies/Academic-Integrity/>

## Case Study: The Inter-Varsity Paper Dart Society

For the last 50 years university clubs dedicated to competition paper airplane flying have been organising inter-university competitions. With a view to formalising the competitions, several clubs from all around the world have created a formal international organisation, the Inter-Varsity Paper Dart Society (IPDS). As part of this process they are compiling a history and defining a ruleset for the new organisation, created by pulling together material from the historical archives of famous paper airplanes and participants in the different clubs and competitions.

The IPDS will bring together all the existing club competitions into a single virtual league. The IPDS virtual league table will be based on various different competition classes and will create a set of current record holders, in time for the first meeting of the new organisation in 2017. The IPDS has managed to get sponsorship from several different companies, so has decided to get a consultant (you) in to carry out a knowledge audit and make recommendations for a knowledge base to record and maintain the league information. Their requirements for the knowledge base are:

- A unified set of categories of events, and the rules for construction materials and designs that can be used in each event. The general categories are for longest time and farthest distance for javelin planes, number of loops for acrobatic planes, for overall stability and for largest wingspan.
- The record-holders for each event, and an overall record holder for the league each year.
- A searchable archive of plans for the planes that were entered.
- Details of each affiliate club.

The information should be available as a publicly consultable website, since they want to spread the word about the competition and encourage new paper plane clubs to form and join the IPDS.

The participating clubs have all grown up separately and have their own customs and conventions. For example, the types of planes have different names in the different languages used by the clubs (including different regional variations in English), and the ways that the information has been stored vary widely (from formal records on paper and in spreadsheets, through to articles published in student magazines). In addition, some competitors are reluctant to publish details about the nature and construction of their winning plans, while others are quite happy to.

It also has to be borne in mind that the club competitions have not been without controversy. Some clubs permit 2-part planes with separate tails, whereas others insist one sheet of paper only can be used in construction. Some clubs insist on single dart design, while others prize the origami approach to plane-making, involving repeated folding to make complex shapes. It will be necessary to resolve these conflicts if the IPDS can achieve their goal of a single set of rules for their virtual league.

**Checklist:**

<b>Requirement</b>	<b>How expressed</b>
Metadata policy	Published, standardised and adhered to
Systematic approach to document creation	Mandated situations for creating documents and mandated procedures for how to go about it
Common term set (vocabulary or ontology)	Published set adhered to, preferably in conformance with industry standard
Understanding of organisational needs	Organisational aim (or aims) unambiguous and clearly stated
Clear statement of needs at the operational level	Telos (purpose) for organisation expressed in practical terms as (e.g.) a mission statement, procedures, targets, outcome projections
Systematic naming process for documents	Naming and locating of documents carried out systematically in accordance with a rule set
Chain of custody for documents	Responsibility for document clearly established at all times
Clear process for decision-making	Chain of command and ultimate responsibility
Awareness of structure of organisation	Unambiguous logical schema for organisation
Documentation of processes (minutes, memos etc)	Organisational procedures published and adhered to

## To Do:

Complete ALL of the questions below for the case study. Please use the question numbers (e.g. 1a, 2b, etc) in your answer.

### Preliminary investigation

1. Carry out the preliminary investigation of the organisation and yourself in relation to it, as follows:
  - a) Give an initial appraisal of the **organisation's** aims and preparedness for a knowledge audit. In your assessment, consider specifically whether it is:
    - mature
    - viable
    - holistic
    - self-aware,as discussed in Topic 6. Note that while you should consider the items in the checklist in carrying out your appraisal, you do not need to address each of the items in detail here.
  - b) Give an assessment of **your own** preparedness in undertaking the knowledge audit for the organisation. In carrying out your assessment, make use of the issues of expertise, ontological structure, background knowledge, opinions and prejudices, and tacit components of knowledge, as discussed in Topic 6. What areas of knowledge do you need to research to bring yourself up to speed?
  - c) Give your assessment of whether it is worthwhile proceeding with the knowledge audit, and why, based on your findings above.

Assuming it is worthwhile proceeding with the knowledge audit (hint: it is worthwhile!) continue to the next part of the assignment.

### Knowledge Audit

2. Commence the knowledge audit by identifying the knowledge gaps and blockages in the organisation, as follows:
  - a) Consider each of the ten checklist issues listed, and assess from the case study whether the organisation addresses them *well* (needing no further attention), *adequately*, or whether there is a *problem*. Justify your assessment in each case. **Take some time to do this part of the assignment thoroughly.**
  - b) Where you consider that more information would be needed to properly identify the knowledge gaps and blockages, outline your strategy for finding out this information.

- c) Include a list of sources you have consulted in carrying out your investigation so far (for example: books, journals, Internet sites). Give the complete reference using Chicago/APA format.
3. Summarise the organisation's KM goals, and state which issue you consider to be the organisation's most pressing problem in achieving its goals, explaining your reasons.

### **Fixing the Knowledge Gap: Planning**

4. Now commence the 'Fixing knowledge gap' phase by identifying the broad nature of the solution required, as follows:
- a) Wherever you have identified the organisation has a *problem* in the checklist of issues, suggest the nature of the solution required to address the issue (bridge the knowledge gap). This solution needs to be in broad terms only: you are not recommending particular vendor products as yet.
  - b) Include a list of sources you have consulted in carrying out your research for this stage. Give the complete reference using Chicago/APA format.

### **Fixing the Knowledge Gap: Solutions**

5. Having identified the knowledge gaps and broad plan for fixing them for the organisation, now proceed to recommend a solution it can implement.
- a) Briefly describe the extent of IT infrastructure (hardware, application software, operating system, networks) already present in the day-to-day running of the organisation. (Some of this information may be stated in the case study, for the remainder you should make an educated estimate and explain your reasoning.) This infrastructure is what your proposed solution will have to work with (by building on/ extending/ replacing).
  - b) Summarise the requirements for a Knowledge Management System for the organisation, and create a list of suggested software packages that will build on the existing infrastructure and assist the organisations in reaching its KM targets.
  - c) Describe any potential problems that could arise with implementing your solution in the organisation. What would you do to avoid or minimise these problems?
  - d) List the sources for your solution. Give the complete reference using Chicago/APA format.

## KDLC exits

6. A potential problem with any knowledge system is 'brain drain' - the departure of key staff with 'knowledge in their head'. If this is significant, it could amount to a 'catastrophe' event where the organisation might be unable to continue operating in its normal way.

How vulnerable would the organisation you have discussed be to this sort of knowledge loss, after your solutions have been put into place? Explain your assessment. If your solutions still leave the organisation vulnerable, what would it take to address this problem?

7. The KDLC has investigator separation as an end point for the work-flow: this is where the investigator helps the organisation continue without him or her, but also involves the investigator taking stock of what new knowledge or skills they have gained in the process.

How has carrying out the investigation in this assignment skilled *you*, as a knowledge investigator? How would this influence your approach the next case you may need to undertake? Reflect on how your personal analytical, research and problem solving skills have been developed (or not) through carrying out the work of this assignment. Where do you consider there are still gaps in your own skill base, and how would you address them?