Readings ReadMe for LM5-IT7723- Your IT Professional Toolkit

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## The IT7723 Story So Far

**In LM1**, we explored definitions, concepts and history of information technology (IT), the IT profession and what it includes and means to be an IT professional. We also prepared to work together throughout the course to increase our skills and capabilities to contribute to the IT profession, e.g., develop an IT Professional Tool Kit. Since IT is so large and ubiquitous, we also set the scope of this course for each of us to focus on IT strategy, IT policy, IT governance and at least one IT subject-matter domain (e.g., database, programming, security, user experience, web, etc.) pertinent to our IT practice.

**In LM2**, we explored strategy in general, business strategy, IT strategy and the relationships between business strategy, IT strategy, value creation, etc. Three key observations we made are: 1) the main goal of the IT function is *maximizing and sustaining value* for the organization; 2) the main purpose of the IT strategy is *alignment* of the IT with the organization; 3) IT strategy should guide the organization’s use of their limited IT resources in maximizing the value of IT to the organization. We also reviewed the role of frameworks, models, and best-practices in aiding strategic planning, and covered specific tools and templates for strategic planning as well.

**In LM3,** we explored policy in general discovering that it is connected to strategy and even more strongly linked to governance. We learned that IT policy can be defined as the administrative and operational procedures allowing and facilitating the disciplined and systematic implementation of sound and safe IT in support of organizational goals and business processes. Connecting to LM2, we learned that we set plans for IT through IT strategy to *maximize and sustain value* for the organization and then use IT policy to *implement our IT plans in a systematic and disciplined manner*. We also reviewed the role of frameworks, models, and best-practices in aiding setting up and implementing policy, and covered specific tools, examples, templates and advice for IT policy as well.

**In LM4**, we completed our exploration by covering governance in general and then specifically, IT governance. Governance in general leads an organization to have *stable processes*. IT governance leads us to achieve stable IT processes through:

* *Measuring* the value provided by *IT* as well as the risks and costs incurred by IT
* *Directing, managing, and/or controlling* IT for contributing optimally to organizational value while minimizing IT costs and managing IT risks
* *Continuously improving* IT and its contribution to the organization and its value

## Advice on what to do in LM5

After reading the A5 exercises associated with LM5, we suggest spending an hour or so exploring the readings linked here. Make sure that as you read that you think about what you read in terms of developing your own IT professional toolkit as a resource for your IT practice and decide what subject-matter expertise (SME) domain you will initially include.

## Q) What is an “IT Toolkit?” A) You Have Many Choices and Options

Wiktionary (<https://en.wiktionary.org/wiki/toolkit>) provides two definitions for toolkit, both of which apply here. The first definition is general- “an assembly of tools,” while the second is specific to computing- “a set of basic components for developing software.” Basically, you will be developing an assembly of tools that will serve as a set of basic components for you to practice IT. Wikipedia (<https://en.wikipedia.org/wiki/List_of_toolkits>) lists many of these toolkits for developing software, apps and other elements of IT systems.

Wikipedia (<https://en.wikipedia.org/wiki/Governance#Governance_as_process>) defines “governance” in its most abstract sense as “a theoretical concept referring to the actions and processes by which stable practices and organizations arise and persist.” Furthermore, Wikipedia states the aim of governance actions and processes is “to show how rational actors may come to establish and sustain formal organizations, including firms and states, and informal organizations, such as networks and practices for governing the commons.” Although the initial definition of governance given in the Wikipedia article is closely linked to government, the quoted definition relating governance to process provides a good and relevant foundation for IT governance.

Sometimes, a toolkit is referred to by a different name or to fulfill multiple purposes. For example, a Wikipedia article covers the IT Toolbox (<https://en.wikipedia.org/wiki/ITtoolbox>), which is an online community devoted to the IT profession. Some IT7833 alums have established a private online community of IT practice at their work through their toolkit projects. Another example is a toolkit used as a career portfolio (<https://en.wikipedia.org/wiki/Career_portfolio>). Being in IT, use an electronic portfolio (<https://en.wikipedia.org/wiki/Electronic_portfolio>) or “eportfolio.” Many IT7833 and IT7723 alums have made their IT Professional Toolkits an eportfolio using, e.g., a publicly available website.

One set of choices you need to make is among the wide range of technologies for IT that you have learned to implement your IT Professional Toolkit. Using a web site or eportfolio are among the good technology choices for you, but there are also many other good technology choices, e.g., file directory, private cloud, pdf, linked ppt slides, etc.

In the final analysis, this assignment should result in *your* IT Professional Toolkit that is *personalized by and for you* as an IT Professional. That is, you have an opportunity to make the choice from many options, and the fun of applying your IT expertise to build *your* toolkit. The fundamental requirement is that it needs to cover in a meaningful way the three areas of IT Strategy, IT Policy and IT Governance and an initial area of IT expertise (e.g., security, web, mobile, healthcare, etc.) *you have chosen* to include in *your* IT practice.

## Your Practice as an IT Professional and Subject-Matter Expert (SME)

As we covered in LM1, IT has grown to the point that no one person can know everything about IT. In recognition of this huge breadth and depth of IT, one desired characteristic of IT professionals is to limit their practice of IT to those SME areas where they are competent and capable. Thus, we speak about security experts, database experts, web experts, etc. to limit our practice within IT. Wikipedia (<https://en.wikipedia.org/wiki/Subject-matter_expert>) has a generic definition of an SME as “an authority in a particular area or domain.” It is helpful to read this Wikipedia article and then also write a definition of a SME for IT. Complete the loop by applying this definition to your practice to document a description (with justification) of the areas in IT (security, web, database, analytics, etc.) where you judge you have sufficient authority to claim SME status; include one of your SME areas in your IT Professional Toolkit. If you have only one, the decision is made; but, if you have multiple areas, we recommend you choose only one for this assignment and get your toolkit off to a good start.

## What Do IT Strategy, IT Policy and IT Governance Involve?

Throughout the course, we have been exploring how IT strategy, IT policy and IT governance—what we will call here the “IT Trio” –work together to help define the IT profession and focus the IT function to deliver value to its organization. It is worth repeating here that we set plans for IT through IT strategy to *align IT with the business to maximize value* and then use IT policy to *implement our IT plans in a systematic and disciplined manner*. IT governance processes are used by the organization to *measure and ensure IT contributes to organizational value with minimal cost, continuous improvement and controlled risks.* IT strategy, IT policy and IT governance are all related and have many points of overlap. Through the years, this has led to confusion, ambiguity and using the terms somewhat interchangeably. Although becoming too picky is possible here, it is recommended that each IT professional create or adopt a definition for each of the three that allows separation of the three terms from each other. Within your IT Toolkit and we suggest you start coverage of each with your definitions. To get you started, here are the initial definitions we have provided in the course:

As a reminder, our initial definition of “IT strategy” from LM2 is:

Plans to, over the long term, align the IT function with the mission, strategic plans, goals, needs, business model and values of the overall organization and support fulfilling efficiently and effectively its business processes.

As a reminder, our initial definition of “IT policy” from LM3 is:

Administrative and operational procedures allowing and facilitating the disciplined and systematic implementation of sound and safe IT in support of organizational goals and business processes

As a reminder, our initial definition of “IT governance” from LM4 is:

“The governance procedures, processes and actions that allow the executives and the management of an organization to

* Measure the value provided by IT as well as the risks and costs incurred by IT
* Direct, manage, and/or control IT for contributing optimally to organizational value while minimizing IT costs and managing IT risks
* Continuously improve IT and its contribution to the organization and its value”

Departing from your initial definition of that area of IT, your IT toolkit should fill in details in a manner meaningful to your practice of IT. In filling in the details, you again have several choices. For example, if the focus of your IT toolkit is on healthcare IT, you might cover each of the IT Trio within the limited scope of healthcare IT; but, if your IT toolkit is more general, you might include each of the IT Trio independently and then also have an independent section for each of your SME areas.

## What Else Goes into Your Toolkit?

Throughout the course, we have been exploring the fundamentals of the IT profession and what it means to be an IT professional. We have covered many elements, and all of these are options to include in your IT toolkit. Again, beyond the IT Trio and one SME area, what you include in *your* IT toolkit is *your choice*. In review, here are some of the possibilities we have covered in this course:

Annotated Bibliography-

Cornell Library Guide- <https://guides.library.cornell.edu/annotatedbibliography> (Terms of Use- [Fair Use of this Guide - How to Prepare an Annotated Bibliography - LibGuides at Cornell University](https://guides.library.cornell.edu/annotatedbibliography/fair_use)

Ethical Code for Your IT Practice-

ACM Code of ethics- <http://www.acm.org/about/code-of-ethics>

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CompTIA Code of ethics for certificate candidates and holders- <https://certification.comptia.org/testing/test-policies/continuing-education-policies/candidate-code-of-ethics> (This link takes you to material copyrighted by CompTIA- <https://www.comptia.org/terms-conditions>.)

EDUCAUSE article on professional ethics within IT- <https://er.educause.edu/articles/2017/3/ethics-and-the-it-professional>

IEEE Code of ethics- <http://www.ieee.org/about/corporate/governance/p7-8.html>

(IEEE Terms and Conditions- <https://www.ieee.org/site-terms-conditions.html>)

Glossary and Dictionary of Key Terms- Compile it from your readings

## Have Some Fun Practicing Your Profession

The assignment’s essential idea is to use your IT skills to develop your personalized IT Toolkit. Enjoy the practice!

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