Knowledge Management
Lodz University
May 9-June 1, 2023
Final Draft 03/30/23

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Introduction

As the new knowledge economy continues to evolve, knowledge is being recognized as a key business asset and a crucial component of business strategy. The ability to manage knowledge, therefore, is quickly becoming vital for securing and maintaining organizational survival. As a result, companies are investing heavily in Information Systems (IS) and /or Knowledge-Based Systems (KBS) technologies. Unfortunately, such investments frequently do not meet expected returns.

In this class we will recognize Knowledge Management (KM) as a socio-technical phenomenon in which the basic social constituents such as person, team and organization require support from IS/KBS applications to support a strategy and add value to the organization. The class will provide a theoretical background and solid practical orientation.

Methodology
The course will consist of online lectures and face to face discussions (synchronic and/or a synchronic) of select articles as well as international company cases studies. We will use Moodle as an LMS. Your reading will be there if not available online. Zoom (or Teams or Hangouts or Skype) will be used for Lectures -provided by the Instructor (some live, some recorded earlier). For small group discussions we can use Hangouts Meet (Teams, or another platform as mutually agreed). You will be expected to watch additional videos, as assigned by your instructor. You will be expected to actively participate in class discussions, read in advance the material provided, deliver presentations, individually and/or in teams, and teach the class.

Specific objectives
The class activities will focus on both the theoretical and practical aspects of these managerial issues. They combine substantial reading, writing, and in-class participation with opportunities to learn and to apply the basic concepts and analytic approaches to understanding the management of organizations. Based on this premise, the objectives of the course can be stated as follows:
- to introduce selected state-of-the-art concepts and theories in KM and ICT analysis so that you can identify, articulate, and act on organizational problems;
- to review some of the contemporary strategies and techniques in managing KM and ICT and to evaluate the relevancy of some new topics in managerial literature;
- to encourage you to reflect on examples from your own experiences in a disciplined and systematic way through class discussions and to generate collective wisdom or shared principles;

- to apply what you have learned in class to actual organizational cases so that you can consolidate the theoretical knowledge and convert it into managerial skills and insights.

<u>Course Details</u>:
Course materials: The texts, of course, provide the majority of the material you will study. Occasionally, I may provide you with handouts, articles, cases or other materials. These are to be read and studied just as you would a textbook chapter. I will also present material in class that supplements and elaborates on the concepts presented in the text.

Setting expectations:
- My intention is to spend minimal time on covering the topics, concepts and issues discussed by the textbooks. I intend to spend most of the time answering questions, discussing concepts and topics NOT mentioned in the textbooks, disagreeing with the textbooks, facilitating class and small group activities and discussing current events as related to the topic of the day.
- I see constructive disagreement as a valuable method for developing the skill of critical thinking. As such, I may disagree with the text or with your opinion.
- This course utilizes a wide variety of instructional methods consistent with principles of adult learning. These include: reading and written assignments, class discussion, practical exercises, case studies, business simulations, team projects and presentations, and other media where appropriate. The instructor acts primarily as a facilitator.

I expect you to:
1. Read the relevant material prior to class.
2. Actively ask questions and answer questions (you might be asked non-voluntarily to answer questions).
3. Express your personal views, as long as they are substantiated.
4. Be open to challenge.
5. Submit only your individual original work.
6. Attend all classes. Forced absences must be communicated to the course instructor prior to the class to be missed. Students are responsible for any material covered in class during their absence. You cannot miss more than three classes to receive a passing grade in this class.

COMPLETION REQUIREMENTS:
Final Group closed book exam (30%) (date – June 1, 2023-15:00-16:35 Poland local time)
The exam account for only 30% of your grade, BUT you must receive a passing grade (60% or higher) in order to receive a passing grade in this class.

Class Attendance and Participation (20% - presence/participation 5*4%)
A key learning opportunity and resource in any accelerated learning program comes through class attendance and participation. This online class is designed to be highly interactive, with learning enhanced through discussion and interaction amongst members. To this extent, it is imperative that every effort is made to attend the classes and fully participate in each and you have the time during the day as needed to complete your academic responsibilities. If you must miss a class (e.g., medical emergency), please notify the instructor as early as possible. For each class missed, it will be left to the instructor's discretion what additional work must be accomplished to ensure the learning objectives for that class are not lost.

You have to participate (be virtually, physically present) in the class, to be eligible as a team member to submit the team response for each session. To receive partial credit, for every missed section, you will be asked to submit an individual case analysis. This will give you only a partial credit for the case points of participation.

This class follows the attendance guidelines of the program as specified in your handbook, pages 8-9.

Individual teaching segment and Leading class discussion (14%)
During the course, you will be assigned **once** a paper from our list of required reading for one of the days. You will present to summary of the paper, relate the paper to our text readings and lead a class discussion. Your presentations will cover the following content aspects related to the articles:
a) What do we know from the article? This includes theories, frameworks, facts, people, events, circumstances, problems, tensions, etc. b) What else would we like to know? What was left out? What are you curious about with this topic? c) Why does it matter? How does it relate to the concepts in our course? Why does it matter to the broader study and practice of Knowledge Management?

In class group case study participation (36% for 4 cases= 4*9%)
You will be assigned randomly to a group by your instructor. Your group will receive an in class short case for analysis with questions. You should use all the learned material in this class (books, lecture notes, all open) plus any information available to you. We will have case discussion and presentations when possible and applicable. Your grade is your group grade as applicable. You MUST be personally present in class to receive this grade. The written team response will be submitted by midnight (local time in Poland) daily. Make sure you allow the time for that in the afternoon, evening as needed.

KM class evaluation

Class attendance and participation (5*4%)	20%
Individual teaching segment and Leading class discussion	14%
Group Case Studies (In class and Out-of-class 4*9%)	36%
Group closed book Exam	30%
Total	100%

KM
Class Calendar-Spring/Summer 2023
University of Lodz
May 9-June 1, 2023
Draft 03/30/23

Session	Class Dates	Topic	Reading	Online	Hand In/Submit
1	May 9 14.05-16.35	Introduction; KM & IC- Introduction; Data & Metadata	ASTHO; pp. 3-10 Illustrated Guide; pp. 1-5 Russ et al., Chapter 1 (pp. 1-9)	Online	Case 1 – Knowledge management practices in Technology Parks: case study - Technology Park TECNOPUC
2a	23-May 12.15-14.50	KM - Advanced concepts KM - Audit	Illustrated Guide; pp. 6-16 Metcalf et al., 2019; Leonard & Martin, 2019 Russ et al., Chapters 4		
2b	23-May 12.15-14.50	KM strategy and IC	Illustrated Guide; pp. 17-20; 24-31; Russ et al., Chapter 1 (pp. 10-19); Russ et al., Chapters 7 & 9; Bontis, 2001; Fisher III & Oberholzer-Gee, 2013		Case 2 – Massingham pp. 150-154
3	May 29 14.05-16.35	KBS	Gottschalk (2002) Illustrated Guide; pp. 21-23; ISO 30401; Daugherty & Wilson, 2019; Beane, 2019; Wittbold et al., 2020		Case 3 – Massingham pp. 461-463
4	May 30 12.15-14.50	KM and Sustainability	Cash, et al., 2003; Russ, 2021		Case 4 – Manila Water
5	14:05-14:45 June 1 15.00-16.35	KM – Future Exam-Group case study			Case – EcoVadis-Exam –

Russ et al., - refers to the required textbook: **Knowledge Management Strategies for Business Development** by Meir Russ (Editor); 2010. Chapters 1,4, 7 & 9 are available from the Instructor.

Day 1; Topics:
Introduction; KM, Introduction; KM - Advanced concepts

Required reading

1. "Knowledge Management: for Public Health Professionals"; ASTHO, pages 3-10. Available at http://stacks.cdc.gov/view/cdc/11371/
Downloaded March 5, 2022.
2. "An illustrated guide to knowledge management" Part 1–Basics pages 1-16. Available at https://www.wm-forum.org/wp-content/blogs.dir/2/files/2014/01/An_Illustrated_Guide_to_Knowledge_Management.pdf
Downloaded March 5, 2022.
3. Russ, M., Fineman, R., and Jones, J.K. (2010). "Conceptual Theory: What Do You Know?" in Russ, M. (Ed.) Knowledge Management Strategies for Business Development: Chapter 1, pp. 1-9. Hershey, PA: Business Science Reference. Available from the Instructor.
4. Metcalf, L., Askay, D. A., & Rosenberg, L. B. (2019). Keeping humans in the loop: pooling knowledge through artificial swarm intelligence to improve business decision making. *California Management Review, 61*(4), 84-109. Available from the Instructor.
5. Dorothy Leonard and James Martin (2019). How Your Organization's Experts Can Share Their Knowledge. https://hbr.org/2019/ 12/how-your-organizations-experts-can-share-their-knowledge. Available from the Instructor.
6. Russ, M., Fineman, R., and Jones, J.K. (2010). KARMA-Knowledge Assessment Review and Management Audit" Ch. 4 in Russ, M. (Ed.) Knowledge Management Strategies for Business Development: 64-83. Hershey, PA: Business Science Reference. Available from the Instructor.

Optional Reading

FCSM (2020). A framework for data quality: FCSM-20-04. Available from the Instructor.
Kranz, G. (n.d.). Metadata: Definition. Available at
https://www.techtarget.com/whatis/definition/metadata

Required reading: Case 1 – Knowledge management practices in technology parks: Case study – Technology Park TECNOPUC. Available from the Instructor.

Required watch	*Optional watch*
Intro for the class-Digital transformation: are you ready for exponential change? Futurist Gerd Leonhard	KM in depth
https://www.youtube.com/watch?v=ystdF6jN7hc	https://www.youtube.com/watch?v=sVtMC3GkMr0
Are you ready for the digital era? | Deloitte Nederland	Shoshana Zuboff on surveillance capitalism
https://www.youtube.com/watch?v=AKF9G0jXlf0	https://www.youtube.com/watch?v=hIXhnWUmMvw
Video KM Brief	Yuval Noah Harari on the myths we need to survive
https://www.youtube.com/watch?v=k3jo7oWzUUc	https://www.youtube.com/watch?v=UTchioiHM0U
	Yuval Noah Harari on the Rise of Homo Deus
	https://www.youtube.com/watch?v=JJ1yS9JIJKs

Day 2
Topics: KM strategy and IC

Required reading
1.   Read "An illustrated guide to knowledge management," Pages 17-20; 24-31, Available at https://www.wm-forum.org/wp-content/blogs.dir/2/files/2014/01/An_Illustrated_Guide_to_Knowledge_Management.pdf   Downloaded March 5, 2022.

2. Russ, M., Fineman, R., and Jones, J.K. (2010). "Conceptual Theory: What Do You Know?" in Russ, M. (Ed.) *Knowledge Management Strategies for Business Development*: Chapter 1, pp. 12-19. Hershey, PA: Business Science Reference. Available from the Instructor

3. Russ, M., Fineman, R., and Jones, J.K. (2010). **"**C3EEP Taxonomy-Knowledge Based Strategies" in Russ, M. (Ed.) *Knowledge Management Strategies for Business Development*: Chapter 7, 133-158. Hershey, PA: Business Science Reference. Available from the Instructor.

4. Russ M., Fineman, R., Paterni R. and Jones, J.K (2010). "How Do We Get There: Strategy Action Framework – "Action Engine"" in Russ, M. (Ed.) *Knowledge Management Strategies for Business Development*: Chapter 9, 181-215. Hershey, PA: Business Science Reference. Available from the Instructor.

5. Bontis, N. (2001). Assessing knowledge assets: a review of the models used to measure intellectual capital. *International Journal of Management Reviews, 3*(1), 41-60. Available from the Instructor.

6. William W. Fisher III; Felix Oberholzer-Gee (Aug 1, 2013) Strategic Management of Intellectual Property: An Integrated Approach. *California Management Review.* Available from the Instructor.

Optional Reading

6.   "Influence of corporate culture on the use of knowledge management techniques and technologies," Davel, R. and Snyman, MMM, 2005, Available from the Instructor.
7.   Martín-de Castro, G., Díez-Vial, I., & Delgado-Verde, M. (2019). Intellectual capital and the firm: evolution and research trends. *Journal of Intellectual Capital, 20*(4), 555-580. Available from the Instructor.
8.   Ihrig, M. & MacMillan, I. Managing your mission-critical knowledge. *HBR,* Jan-Feb 2015. Available from the Instructor.

Required reading: Case 2 – Knowledge accounts at the CSO, by Peter Massingham, 2020, pp. 150-154
Required watch

KM strategy Intro	Future of Skills: Jobs in 2030
https://www.youtube.com/watch?v=RXbb87_M3vc	https://www.youtube.com/watch?v=M908RNjj0n8
Why KM fail	
https://www.youtube.com/watch?v=pF9M5ezkxQs	The 5 Trends Shaping the Future of Work
The Digital Skills Gap and the Future of Jobs 2020 - The Fundamental Growth Mindset	https://www.youtube.com/watch?v=LrhmHbDLM8o
https://www.youtube.com/watch?v=Y9FOyoS3Fag	

Day 3
Topics: KBS

Required reading

1. "Toward a model of growth stages for knowledge management technology in law firms". Gottschalk, P. (2002). Informing Science. Available at http://inform.nu/Articles/Vol5/v5n2p079-093.pdf Downloaded March 5, 2022.

2. "An illustrated guide to knowledge management" Part 5– pages 21-23.
Available at
https://www.wm-forum.org/wp-content/blogs.dir/2/files/2014/01/An_Illustrated_Guide_to_Knowledge_Management.pdf
Downloaded March 5, 2022.

3. ISO 30401 - Knowledge management systems — Requirements; Available from the Instructor.

4. Paul R. Daugherty and H. James Wilson (2019). Using AI to Make Knowledge Workers More Effective. https://hbr.org/2019/04/using-ai-to-make-knowledge-workers-more-effective Downloaded March 5, 2022.

5. Matt Beane (2019). Learning to Work with Intelligent Machines. https://hbr.org/2019/09/learning-to-work-with-intelligent-machines Downloaded March 5, 2022.
6. Kelley A. Wittbold , Colleen Carroll , Marco Iansiti , Haipeng Mark Zhang and Adam B. Landman (2020). How Hospitals Are Using AI to Battle Covid-19. https://hbr.org/2020/04/how-hospitals-are-using-ai-to-battle-covid-19 Downloaded March 5, 2022.

Required reading: Case 3 – Cap Gemini and Ernst & Young – A tale of merging two KM Systems, by Peter Massingham, 2020, pp. 461-463.

Required watch

The ISO knowledge management standard explained -30401
https://www.youtube.com/watch?v=j2qWRgkyFBI

Don't fear intelligent machines. Work with them | Garry Kasparov
https://www.youtube.com/watch?v=NP8xt8o4_5Q

Day 4
Topics: Sustainability and KM

Required reading

1. Cash, D. W., Clark, W. C., Alcock, F., Dickson, N. M., Eckley, N., Guston, D. H., Jager, J., & Mitchell, R. B. (2003). Knowledge systems for sustainable development. PNAS 100:8086–8091 available at http://www.pnas.org/content/100/14/8086.full.pdf+htm downloaded March 5, 2022.
2. Russ M. (2021). Knowledge Management for Sustainable Development in the Era of Continuously Accelerating Technological Revolutions: A Framework and Models. *Sustainability, 13*(6):3353. https://doi.org/10.3390/su13063353 .

Optional reading

3. Snow, C. C., Håkonsson, D. D., & Obel, B. (2016). A smart city is a collaborative community: Lessons from smart Aarhus. *California Management Review, 59*(1), 92-108. Available from the Instructor.
4. Adam Werbach (2009). A Different Way to Formulate Your Business Strategy: Seven Tenets of a Strategy for Sustainability. *Strategy for Sustainability: A Business Manifesto.* Available from the Instructor.
5. Peter M. Senge, Benyamin B. Lichtenstein, Katrin Kaeufer, Hilary Bradbury and John S. Carroll (2007). Collaborating For Systemic Change. *MIT Sloan Management Review* 48(2). Available from the Instructor.
6. Scipioni, S., Russ, M., & Niccolini, F. (2021). From barriers to enablers: The role of organizational learning in transitioning SMEs into the Circular economy. *Sustainability, 13*(3), 1021. https://www.mdpi.com/2071-1050/13/3/1021
7. de Villiers, C., & Sharma, U. (2020). A critical reflection on the future of financial, intellectual capital, sustainability and integrated reporting. *Critical Perspectives on Accounting, 70*, 101999. Available from the Instructor.

Required reading: Case 4 – Manila Water: From privatization to sustainable growth by Chee Wei Kwan, Christopher Dula, 2014

<u>Required watch</u>

Sustainability explained (explainity® explainer video)
https://www.youtube.com/watch?v=_5r4loXPyx8
Why We Need to Think Differently About Sustainability: Leyla Acaroglu
https://www.youtube.com/watch?v=5lOSIHWOp2I
ISO 14001 PLAN, DO, CHECK, ACT - HOW TO IMPLEMENT AN ENVIRONMENTAL MANAGEMENT SYSTEM
https://www.youtube.com/watch?v=UKeHdliInAQ
ISO 14001 Aspects & Impacts Simplified
https://www.youtube.com/watch?v=8gyqHtc4cOM
ISO 14001 What is it ? an overview
https://www.youtube.com/watch?v=xf0q4wM2Vt8

Day 5
Topics: Future KM
Final Exam- Group Closed book Exam

Required reading: Case 5 – 'EcoVadis: A Sustainability rating company going global' by Anne Nai-Tien Huang, INSEAD, 2020.

Optional reading

Davenport, T. H., & Ronanki, R. (2018). Artificial intelligence for the real world. *Harvard Business Review*, *96*(1), 108-116. Available at https://www.kungfu.ai/wp-content/uploads/2019/01/R1801H-PDF-ENG.pdf downloaded March 6, 2022.

Deloitte LLP 2016. talent for survival essential skills for human working in the machine age. Available at https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/Growth/deloitte-uk-talent-for-survival-report.pdf downloaded March 6, 2022.

Fountaine, T., McCarthy, B., & Saleh, T. (2019). Building the AI-powered organization. *Harvard Business Review*, *97*(4), 62-73. Available from the Instructor.

Frey, C. B., & Osborne, M. A. (2017). The future of employment: How susceptible are jobs to computerisation? *Technological Forecasting and Social Change*, *114*, 254-280. Available from the Instructor.

Jarrahi, M. H. (2018). Artificial intelligence and the future of work: Human-AI symbiosis in organizational decision making. *Business Horizons*, *61*(4), 577-586. Available from the Instructor

Kolbjørnsrud, V., Amico, R., & Thomas, R. J. (2016). How artificial intelligence will redefine management. *Harvard Business Review*, *2*, 1-6. Available from the Instructor.

Olan, F., Arakpogun, E. O., Suklan, J., Nakpodia, F., Damij, N., & Jayawickrama, U. (2022). Artificial intelligence and knowledge sharing: Contributing factors to organizational performance. *Journal of Business Research*, *145*, 605-615. Available from the Instructor.

Paschen, J., Wilson, M., & Ferreira, J. J. (2020). Collaborative intelligence: How human and artificial intelligence create value along the B2B sales funnel. *Business Horizons*, *63*(3), 403-414. Available from the Instructor.

Wu, A., Wang, Y., Shu, X., Moritz, D., Cui, W., Zhang, H., ... & Qu, H. (2021). Ai4vis: Survey on artificial intelligence approaches for data visualization. *IEEE Transactions on Visualization and Computer Graphics*. Available from the Instructor.

Case 1: Knowledge management practices in technology parks: Case study – Technology Park TECNOPUC

<u>Questions</u>

1. What types of knowledge can be observed in this case?
2. What is the role of knowledge management in a technology park like TECNOPUC?
3. What are the benefits of a collaborative approach to knowledge management in a technology park environment?
4. What are the specific tools and technologies used by TECNOPUC to facilitate knowledge sharing and collaboration among park residents?
5. What types of knowledge (and/or KM) should have been used/introduced by TECNOPUC?
6. What lessons can be learned from TECNOPUC's experience with knowledge management in a technology park setting, and how can they be applied in other contexts?

7. How does TECNOPUC measure the success of its knowledge management practices?
8. What are some examples of successful knowledge management initiatives implemented by TECNOPUC?
9. How does TECNOPUC integrate knowledge management practices into its overall strategy for economic development in the region?
10. What are the key challenges faced by TECNOPUC in implementing effective knowledge management practices?
11. How does TECNOPUC's knowledge management strategy support the development of technology-based companies in the park?
12. How does TECNOPUC ensure the protection and security of intellectual property and confidential information?