

Prospect and Management Challenges in Improving Employee Quality Performance in the Digital Era



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UMUC.EDU

The Digital Era

Presentation plan:

- Introduction
- Define the Digital Era
- Talk about training business and public sector managers for the digital age
 - What management skills are still important?
 - What new skills and capabilities are called for to succeed in the digital age?
 - What established management skills need to be modified to adapt to the Digital Era?
- Talk about how the Digital Era can enhance the education process.

University of Maryland University College

University of Maryland University College (UMUC)



University of Maryland University College

UMUC Mission

The mission of University of Maryland University College is improving the lives of adult learners. We will accomplish this by:

- Operating as Maryland's open university, serving working adults, military servicemen and servicewomen and their families, and veterans who reside in Maryland, across the United States, and around the world;

University of Maryland University College

UMUC Mission

- Serving as a recognized leader in career-relevant education, embracing innovation and change aligned with our purpose and sharing our perspectives and expertise.

University of Maryland University College

Background information:

- Founded in 1947 as a branch of UM College Park
- Open enrollment university
- Europe – 1949, Asia 1956
- In 1970 UMUC became an independent degree-granting institution within the University System of Maryland
- 140 locations on four continents

University of Maryland University College

Background information:

- Bachelors, masters and doctoral degrees
- 90 individual degrees, specializations and certificates
- About 975 distinct online courses
- 80% of registrations are online
- Largest four-year public university in the USA
- About 90,000 students
- 75% of undergraduates work full time

What is the Digital Era?

Digital Era

What is the Digital Era?

Definitions:

"the present time, when most information is in a digital form, especially when compared to the time when computers were not used¹"

“The digital age (era), also called the information age, is defined as the time period starting in the 1970s with the introduction of the personal computer with subsequent technology introduced providing the ability to transfer information freely and quickly²”

1. Cambridge Dictionary Online, retrieved on June 22, 2016 from <http://dictionary.cambridge.org/dictionary/english/digital-age>
2. Yourdictionary.com retrieved on June 22, 2016 from <http://www.yourdictionary.com/Definitions:>

What is the Digital ERA?

1. The Digital Era, is characterized by the massive amount of information that is available and the means to assess, analyze and use that information to achieve individual and organizational goals.
2. The Digital Era has also been characterized by rapid globalization – “Globalization is a process of interaction and integration among the people, companies, and governments of different nations.”³

³ retrieved on June 27, 2016 from <http://www.globalization101.org/what-is-globalization/>

Digital Era Timeline

1947

- Transistor invented
- ENIAC turned on

1951

- First commercial computer

1958

- Microchip invented

1969

- ARPANET created

1975

- Cray 1 developed

1977

- Apple II on sale

1983

- ARPANET becomes the Internet

1989

- Microsoft Office

1993

- World Wide Web

1998

- Google Founded

2003

- Myspace launched

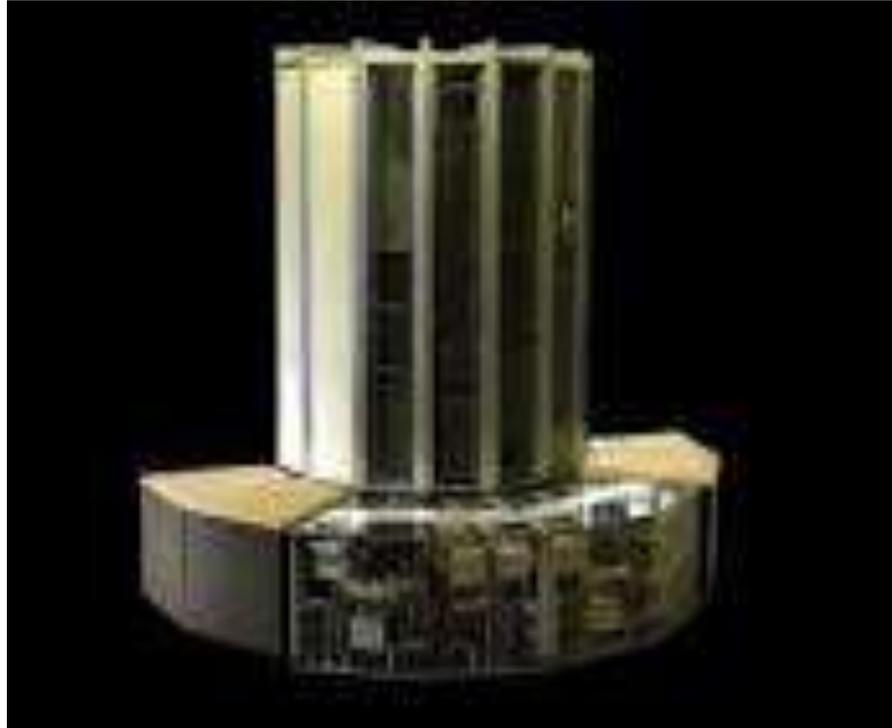
2007

- I-Phone Introduced

Digital Era Timeline - ENIAC



Digital Era Timeline – Cray 1



Digital Era Timeline – Apple II



Digital Era Timeline - Atari



Digital Era Timeline - iPad

W



The Data Deluge

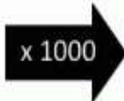
understanding the data deluge: comparison of scale with physical objects

1 megabyte

(A large novel)



A tiny ant



1 gigabyte

(Information in the human genome)



Height of a short person



1 terabyte

(Annual world literature production)



Length of the Auckland Harbour Bridge



1 petabyte

(All US academic research libraries)



Length of New Zealand



1 exabyte

(Two thirds of annual production of information)



Diameter of the Sun



Indonesia – Data Development

- Indonesia's ICT Development index is 108th in the world. The ICT measure's the level of development of an information society. ⁴
- Internet User Penetration Est. 2016 – 40% or 100m people which is also the Asia average of 40% and near the worldwide average of 46%⁵
- Smartphone usage – Est. 2016 – 26.1% or 65.2m people which is below the worldwide average of 46%⁶

4. Retrieved on June 22, 2016 from <http://www.itu.int/net4/ITU-D/idi/2015/>

5. Retrieved on June 22, 2016 from <http://www.indonesia-investments.com/news/todays-headlines/indonesia-has-100-million-internet-users-internet-penetration-at-40/item6827>

6. Retrieved on June 22, 2016 from <http://www.emarketer.com/Article/2-Billion-Consumers-Worldwide-Smartphones-by-2016/10116945>.

Globalization

Globalization is not new. If you look at trade as a sign of globalization:

- The Phoenicians were trading around the Mediterranean by ship by 1500 BCE
- The Chinese began their international trade during the Han Dynasty around 200 BCE
- India and what is today, Indonesia, were trading together at least by the first century AD.

However, policy changes and technology has driven globalization since 1950.

Impact of Globalization on Business

- Today, the market is local and global
 - International trade increased from \$296 Billion in 1950 (WTO) to \$23,874 Billion in 2014 (WTO)
 - Indonesian trade is estimated at \$191 Billion in 2015
- Trade is facilitated by digital technology
 - Instant, low cost communication
 - Electronic bank transfers
 - Consumer awareness of products via digital media
- Global trade means more competition
 - Direct competition
 - More products and services to chose from

Digital Era – Successful Management

Management principles have not changed – the environment has changed.

We need to educate managers in the fundamentals

and

We need to educate managers to thrive in the new and rapidly changing business and public sector environment driven by information

What are Good Management Practices?

Basics of Management

UMUC Business Management Outcomes

- 1.) Plan and communicate a shared vision for the organization that will drive strategy, assist with decision making, and position the organization in the business environment.
- 2.) Employ critical thinking to evaluate qualitative and quantitative data and effectively communicate across all layers of the organization.

Basics of Management

UMUC Business Management Outcomes

- 3.) Develop, communicate, implement, and follow policies and procedures that inform and guide operations to reduce cost and organizational risk and promote ethical practices.
- 4.) Manage people, time, and resources by utilizing effective employment practices, encouraging team building, and mentoring junior members of the staff.
- 5.) Design and execute personal and employee development systems to enhance job performance and leadership skills.

Basics of Management

Drucker's Eight Business Practices

- They asked, “What needs to be done?”
- They asked, “What is right for the enterprise?”
- They developed action plans.
- They took responsibility for decisions.
- They took responsibility for communicating.
- They focused on opportunities rather than problems.
- They ran productive meetings.
- They thought and said “we” rather than “I.”⁷

7. Retrieved on June 24, 2016 from

<http://riversidebusinesscoach.com/2012/02/management-skills-for-the-effective-manager-druckers-the-effective-executive-part-1>

Basics of Management

Soft Skills

Patience – “Employees appreciate being treated with patience.”

Courage – “Have the fortitude to hold your people accountable for the big stuff they need to get right.”

Thoughtfulness – “praise your people when it’s deserved.”

Fairness – “Resist the understandable tendency toward favoritism.”

Execution - As Ross Perot used to say, “The devil’s in the details.”

Digital Era – Successful Management

Digital Era Skills

Impact of the Digital Era

Today organizations are faced with:

- Huge amounts of data
- Processing power and algorithms to analyze the data
- Smart mobile devices which make the data and computing power available to users around the world
- As these technologies gain momentum, they are profoundly changing the strategic context: altering the structure of competition, the conduct of business, and, ultimately, performance across industries

Impact of the Digital Era

- Digitization is rewriting the rules of competition, with incumbent companies most at risk of being left behind. Here are six critical decisions CEOs must make to address the strategic challenge posed by the digital revolution

Impact of the Digital Era

- Digitization often lowers entry barriers, causing long-established boundaries between sectors to tumble. At the same time, the “plug and play” nature of digital assets causes value chains to disaggregate, creating openings for focused, fast-moving competitors. ⁸

8. Retrieved on June 27, 2016 from <http://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/strategic-principles-for-competing-in-the-digital-age>

Training Managers for the Digital Era

How do we prepare students for the digital era?

Skills that need to Adapt to the Digital Era?

- Managing change - Adapt to a constantly accelerating rate of change
- Innovation - Drive rapid innovation – what is right today will be obsolete tomorrow
- Cooperation – Its not just local, its national and global
- People skills – taking advantage of diversity
- Organizational skills – adapting the organization in a constantly changing environment
- Training – innovative ways to keep the workforce current

New or Highly Enhanced Skills

Data Management

- Accessing the right data
- Differentiating the “Good” data
- Analyzing the “Good” data
- Effectively using data analysis to develop plans to inform, alter and improve operations

New or Highly Enhanced Skills

“The truly successful managers and leaders will...be characterized not by how they can access information, but by how they can access the most relevant information and differentiate it from the exponentially multiplying masses of non-relevant information”.⁹

9. Nevins, M., Stumph, A., (1999). 21st Century Leadership: Redefining Management Education: Educating managers in the Modern Era. Strategy+business, Third Quarter 1999 (Issue 16), 2-31.

Training Managers for the Digital Era

Build digital literacy - We can't assume that our students are digitally proficient

- Computer basics
- Internet basics
- Using “Office” productivity programs
- Mobile media
- Security and Privacy issues
- Digital enhancements (video etc.)
- Cultural practices on the World Wide Web

Training Managers for the Digital Era

Data Analysis - basics

- Obtain data from multiple sources
- Integrate data from multiple sources
- Select the appropriate tools for analysis
- Analyze data and produce relevant information
- Provide insight into a situation
- Review the results and initiate additional data search and analysis if necessary
- Draw conclusions and make recommendations

Training Managers for the Digital Era

Develop change management skills

- Understanding the change process
- Understanding the impact of change on people. Teams and an organization
- Leading change in an organization
 - Introducing change
 - Building support for change
 - Managing the transition
 - Coaching people through the process
 - Reinforcing and celebrating change

Training Managers for the Digital Era



Training Managers for the Digital Era

Driving Innovation

- Strategic thinking
- Developing critical thinking and the creative process
- Learning innovation methods and techniques
- Overcome barriers to innovative thinking
- Creating an innovative culture
- Facilitating idea generation
- Organizing for innovation

Impact of Globalization

What to expect

- Increased competition
- Spread of technology and know how
- Increased market opportunities
- Availability of capital

What do managers need?

- Global awareness (Read the Economist)
 - Scan the world for opportunities
 - Scan the world for threats
- Develop a global perspective – What does this event mean to my organization?

Digital Enhancement of Higher Education

How can we take advantage of the digital era to enhance education?

Digital Enhancement of Higher Education

- Online education
 - Hybrid courses (Flipped classroom)
 - Full courses
 - Continuing education
- Open Educational Resources
- Diverse group projects (teamwork)
- Student information
- Artificial Intelligence

Digital Enhancement of Higher Education

Hybrid Courses also called a flipped Classroom

- Combines what works best online and what works best in the face-to-face environment
 - Learning material can take advantage of different media
 - Students have the time to review and think about presentations they view/read at home and to prepare questions
 - The face-to-face class can focus on learning activities which explain and reinforce the lessons
 - Classroom time can be allocated for group activities
- Cuts the need for classroom space in half

Digital Enhancement of Higher Education

Online classes

- Convenience (no commuting)
- Flexibility
- Comfortable learning environment
- Provides a safe environment for faculty/student conversation
- Improves computer skills
- Builds self-discipline
- Increases reach of the programs where the technology exists

Digital Enhancement of Higher Education

Continuing education

Online classes provide a convenient for working adults to upgrade and add to their skills while working full time.

Digital Enhancement of Higher Education

Open Educational Resources (OERs) are teaching, learning and research materials that are in the public domain or released with an intellectual property license that allows for free use, adaptation and distribution¹⁰.” OERs range from:

- Textbooks & Lecture notes
- Articles
- Websites
- Curricula & Syllabi
- Assignments & Projects
- Audio, video, and animation

10. Retrieved from: <http://www.unesco.org/new/en/communication-and-information/access-to-knowledge/open-educational-resources/>

Digital Enhancement of Higher Education

OERs contribute to student success because:

- There is no cost to students
- Allows faculty to tailor the course material to the course description and objectives
- Provides the opportunity to always be current and relevant even in rapidly changing fields
- Gives learners the opportunity to learn from a variety of media instead of just a text.

Digital Enhancement of Higher Education

- Diverse group projects (teamwork)
 - Online learning platforms support asynchronous team projects
 - The internet provides the opportunity to create teams drawn from different regions and even different countries.
- Student information- Online learning promotes the development of internet research skills
- Artificial Intelligence (AI) – AI can be used to:
 - Grade objective tests
 - Grade essays
 - Provide formative feedback

Questions and Comments

Suggested Reading

Budworth, M., Latham, G. P., & Manroop, L. (2015). Looking forward to performance improvement: A field test of the feedforward interview for performance management. *Human Resource Management, 54*(1), 45-54.

Buckingham, M., & Goodall, A. (2015). Reinventing performance management: how one company is rethinking peer feedback and the annual review, and trying to design a system to fuel improvement. *Harvard Business Review, (4)*, 40.

DeNisi, A., & Smith, C. E. (2014). Performance appraisal, performance management, and firm-level performance: A review, a proposed model, and new directions for future research. *The Academy Of Management Annals, 8*(1), 127-179.

Suggested Reading

Focus on employees to improve performance: five conversations to fully engage employees. (2015). *Healthcare Registration*, (8). 8.

Desmet, J. (2015). Learners, take a time out: research shows that reflecting on learning improves job performance. *TD Magazine*, (2). 20.

Malgeri, J. (2012). Changing behavior and improving work performance. *The Public Manager*, (3). 76.

Sastry Akella, S. K., & Venketeswara Rao, K. (2016). An Analysis of Factors Contributing to the Performance of Employees in IT Industry: An Empirical Study. *IUP Journal Of Computer Sciences*, 10(1/2), 71-87.