

## **Course: Professional Issues in Information Technology**

### **Week 9: IT and Employment**

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#### **Lecture learning outcomes**

At the end of this lecture, the learner should be able to:

1. Define the IT technologies that affect quality, quantity and organization of work:
2. Describe the various ways IT has affected work and workers e.g. deskilling and flattening of organizations;
3. Describe Telecommuting and Outsourcing aspects of employment

#### **Introduction:**

In this lecture we evaluate two areas of employment affected by Information Technology i.e. working from home and outsourcing labour. We realize that utilizing IT affects the quality and quantity of work in an organization. On the same note use of IT has affected workers with some of them losing employment as machines replace humans and also deskilling people especially in the area of communication.

#### **A: Telecommuting**

- Telecommuting is also known as teleworking from home as people access corporate resources via the Internet. The requirements to work effectively from home are a phone, a computer, and the *willingness to work hard*.
- Many telecommuting jobs require unlimited long distance and high-speed internet
- A remote worker is a teleworker who might work from home, coffee shop, restaurant, hotel etc.

#### **Methods of Telecommuting**

##### **1. Work space at home:**

- The employee sets aside a work space at home to conduct work related duties. It becomes the designated space to report on daily basis with the proper furniture and equipment. The only difference is that the home office has no reporting time as compared to the formal office.

## **2. Satellite offices:**

- These are remote office locations, usually placed within a large concentration of employee residences e.g. for cases where companies provide houses for their employees.
- This allows employees to share common office space and reduce commuting time and expenses to and from the office.<sup>1</sup>

## **3. Neighborhood work centers:**

- These provide workspace for employees of different companies in one location.
- Each company is responsible for the administrative and technical requirements of its employees.

## **3. Virtual office mobile workers:**

- The telecommuter's office may be an airport, a hotel, or a car.
- These mobile telecommuters are constantly on the road and use technology to link to the office.<sup>2</sup>

## **Working Remotely and Securely**

- Protect every device using firewalls, antiviruses etc.
- Maintain a secure connection – Virtual Private Networks (VPN)
- Utilize cloud applications since they use data encryption during transmission
- Use remote server access to manage remote connections
- Scan for malicious code and recognize probes/penetration attempts from hackers
- Create awareness amongst employees about Denial of Service (DoS) attacks
- Isolate compromised hosts and accounts by shutting them down to prevent further loss of confidential data and identity theft

## **What has made telecommuting popular?**

- i. Technology advancements e.g. Wi-Fi enabled laptops, tablets, smartphones, video conferencing tools, VPNs and VoIP, Social media advances increasing a need for 24/7 business environments.

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<sup>1</sup> Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 304

<sup>2</sup> Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 304

- ii. Fiber to The Home (FTTH) and low internet cost makes telecommuting preferable
- iii. Pandemics like COVID-19 requiring isolation of people

### **Advantages of working from home**

- i. Reduced stress, increased ability to meet schedules
- ii. Higher personal productivity
- iii. Reduced office space requirements (for the employer)
- iv. Flexible schedule of the work-at-home leading to high morale and lower absenteeism from work<sup>3</sup>
- v. Lower employee turnover
- vi. No restricted dress codes
- vii. Introverts do not have to worry about company
- viii. For those who do not like being supervised by seniors
- ix. No driving time means more time with families and saving on gas/fuel money<sup>4</sup>

### **Disadvantages of working from home**

- i. Management gets it harder to evaluate performance
- ii. Stress from inability to separate work from home
- iii. Less chances to advance with a company,
- iv. Isolation, and getting disconnected
- v. Lack of benefits e.g. travel expenses.
- vi. Company meetings and events give people the opportunity to network and get in good terms with the bosses.
- vii. Not suitable for all types of jobs or all employees<sup>5</sup>

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<sup>3</sup> Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 305

<sup>4</sup> Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 305

<sup>5</sup> Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 305

## **How to increase productivity while teleworking**

- ✓ Setting consistent working hours more so when one is most productive
- ✓ Working from a consistent room and desk rather than from the couch or bed
- ✓ Separating work time and personal time and letting people know one is not available to work during personal time
- ✓ Planning the work flow before someone starts working and planning for health breaks
- ✓ Dressing up as if showing up to work to prepare mentally that it is work time

## **B - Outsourcing**

- This is a contractual arrangement where a client allocates a specific business function to a specialist external service provider.
- These processes can be performed by employees within the company, but instead they are contracted to a third party for a significant period of time.
- The functions performed by the third party can be performed on-site or off-site.

### **What is the logic behind Outsourcing?**

- The logic is that a company specializing in a particular area, e.g. catering or office cleaning, is probably better at it, therefore outsourcing helps an organization to focus on their core competencies<sup>6</sup>

### **Outsourcing Example:**

- Normally, organizations cannot handle all aspects of a business process internally. Example: An IT department with too many projects, few personnel, a constrained budget can outsource services to bring control back to that area.

### **Why Outsource?**

- Some processes are temporary there's no need to hire in-house professionals to perform the tasks.
- Once the task is outsourced to the service provider, they take carry out the tasks and maintain the organization's assets.
- Some organizations look to outsourcing as the savior of their company.
- Others see outsourcing as an evil job-killing tactic of management.

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<sup>6</sup> Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 306

### **Commonly outsourced business areas include:<sup>7</sup>**

- ✓ Network and Telecommunications
- ✓ Web Design and Maintenance
- ✓ Human Resources and Insurance Administration
- ✓ Recruitment
- ✓ Logistics
- ✓ Legal outsourcing
- ✓ Manufacturing
- ✓ Technical/Customer Support
- ✓ Accounting
- ✓ Marketing
- ✓ Security

### **Advantages of Outsourcing**

#### **i. Focus on Core Activities**

When necessary, but peripheral operations are outsourced, the management has the ability to concentrate on the core business issues instead of getting distracted by required, but minor matters.<sup>8</sup> An example is a hospital outsourcing security operations to a third-party company specializing in security as they focus on providing medical services to patients.

#### **ii. Cost and Efficiency Savings**

Outsourcing can save the company money since the prices of labor and/or materials keep increasing.<sup>9</sup>

#### **iii. Relieving Resources**

- Outsourcing helps provide alternatives whenever there is shortage of critical resources e.g. skilled employees in a certain area like engineers.

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<sup>7</sup> Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 306

<sup>8</sup> Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 383

<sup>9</sup> Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 383

- Complicated back-office functions cannot be performed effectively and at reasonable cost, e.g. a small doctor's office accepting a variety of insurance plans with one part-time employee cannot keep up with all the different providers and rules. Outsourcing a firm specializing in medical billing is the only solution.<sup>10</sup>

**iv. Swiftness and Expertise:**

- Tasks are normally outsourced to vendors who specialize in those fields.
- The outsourced vendors also have better, specific equipment and technical expertise than the ones at the outsourcing organization.
- This means that tasks are completed faster and with better quality output<sup>11</sup>

**v. Reduced Overhead**

- Overhead costs of performing a particular back-office function like outbound telemarketing or data entry are extremely high
- Company growth leads to increased need for office space which may be very expensive or there may be no room to expand.<sup>12</sup>

**vi. Reduced Operational and Recruitment costs:**

- Outsourcing removes the need to hire individuals in-house; hence recruitment and operational costs can be minimized to a great extent. This is one of the prime advantages of offshore outsourcing.<sup>13</sup>

**vii. Operational Control**

- Departments or operations with uncontrolled and poorly managed areas need outsourcing to bring better management skills to the company
- An example of taking operational control is an IT department with too many projects, few personnel and a strained budget exceeding the contribution to the

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<sup>10</sup> Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 384

<sup>11</sup> Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 383

<sup>12</sup> Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 383

<sup>13</sup> Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 383

organization needs to outsource some projects to bring control back to that area/department.<sup>14</sup>

**viii. Staffing Flexibility**

- Outsourcing allows seasonal operations to bring in additional resources only when needed and release them when done.
- Example: A short-handed accounting department can outsource functions during tax season and auditing periods at a consistent cost.<sup>15</sup>

**ix. Continuity & Risk Management**

- High employee turnover adds uncertainty and inconsistency to the operations.
- Outsourcing provides a level of continuity to the company
- Risk-sharing: Outsourcing certain components of a business process helps organizations shift certain responsibilities to the outsourced vendor. Since the outsourced vendor is a specialist, they plan risk-mitigating factors better.<sup>16</sup>

**x. Developing/Growth of the Internal Staff**

- On-site outsourcing of large projects that require skills lacking from internal staff do not possess brings skilled people into the company.
- Internal staff can work alongside of them to acquire the new skill set.<sup>17</sup>

**Disadvantages of Outsourcing**<sup>18</sup>

- Risk of exposing confidential data:** e.g. outsourcing HR, Payroll and Recruitment services, involves a risk of exposing confidential company information to a third-party.
- Synchronizing the deliverables:** if the right partner for outsourcing is not chosen, some of the common problem areas include stretched delivery time frames and sub-standard quality output. These factors are easier to regulate within an organization rather than with an outsourced partner.

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<sup>14</sup> Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 384

<sup>15</sup> Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 384

<sup>16</sup> Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 383

<sup>17</sup> Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 383

<sup>18</sup> Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 384

- iii. **Hidden costs:** Although outsourcing is cost-effective, at times hidden costs involved in signing a contract may not be clear to all parties involved.
  
- iv. **Lack of customer focus:** An outsourced vendor may be providing expertise-needs to multiple organizations at a time. In such a situation, vendors may lack complete focus on the organization's tasks and customers.<sup>19</sup>

**Conclusion:**

- Organizations use Information Technology to balance the business equation i.e. adding revenue and reducing cost streams.
- Information Technology does the following to an organization
  - i. **Automates** - applications designed to do better what is done manually (=efficiency)
  - ii. **Informs** - automated applications generate useful information as a by-product (=effectiveness)
  - iii. **Transforms** - applications achieve an end result (possibly new) in a new way (=significant value addition)

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<sup>19</sup> Ethics in Information Technology, 4th ed. Reynolds, G. Course Technology, Boston, USA. (2011) Pg. 384

## **Content Covered in Week 9: IT and Employment**

We have been able to cover the following:

1. Defined the IT technologies that affect quality, quantity and organization of work:
2. Described the various ways IT has affected work and workers e.g. deskilling and flattening of organizations;
3. Described Telecommuting and Outsourcing aspects of employment

## **Course Text Books**

1. Professional Issues in Information Technology. Bott, F. *British Computer Society, UK.* (2005)
2. Ethics in Information Technology, 4th ed. Reynolds, G. *Course Technology, Boston, USA.* (2011)
3. Computers in Society: Privacy, Ethics and the Internet. George, J.F. *Pearson Prentice Hall, New Jersey.* (2004)
4. Cyber-ethics: Morality and Law in Cyberspace, 5th ed., Spinello, R.A. *Jones & Bartlett, Burlington, Mass., USA.* (2013)
5. Contemporary Issues in Ethics and Information Technology. *Schultz, R.A. IRM Press, USA.* (2005)