

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

## **Week 8: Software Contracts**

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# Learning outcomes Lecture 8: Software Contracts

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

1. Define the two terminologies contract and software contract
2. Describe various parts of a software contractual agreement(s)
3. Describe the various software contracts available

# Course description

- The course begins with an introduction to terminologies like profession, data and Information Technology. This will be followed by a coverage of the data processing cycle, an introduction to Law, Ethics and the Concept of privacy. Cyber crimes will then be covered to see what the law says in relation to cyber crimes.
- A detailed coverage of Intellectual property rights will then follow with the learners being exposed to various property rights and the glaring issue of plagiarism.
- The four dimensions of ethical dilemmas will then follow to enable learners apply wisdom in matters related to ethical decision making.
- An evaluation of the effect of Information Technology in employment will culminate the course where learners will cover issues related to health and safety at work, Netiquette, Software contracts, major internet security issues and Computer misuse.

# Definition: Contract

- A contract is an **agreement** between two or more persons
- A contract can be **enforced in a court of law**
- The parties involved in a contract must be **legal persons** or **natural persons**
- A Legal person or a legal entity is a person or entity that has the capacity to **act**, acquire **rights** and create **obligations** (separate from its members)

# Essential points of a contract

- i. All the parties must **intend** to make a contract
- ii. All parties must be **legally competent** (i.e. **old enough, of sufficiently sound mind**)
- iii. There must be a consideration: each party **receiving/providing something**
- iv. Contract law is largely based on **common law**

# Definition: Software Contract

- A Software contract is an agreement that specifies the rights and responsibilities of a **programmer** (or vendor) and a principal or **customer**.<sup>1</sup>
- A software contract consists of a non-exclusive **licence to use the software**
- **The following are the provisions of a software contract: -**

## Provisions of a software contract: -

1. A copy of the source code is **kept with an agent for release to the customer** should the programmer (or vendor) **fail to comply** with terms of software development<sup>2</sup>
2. Insertion of **special code** in the software through which the **programmer (or vendor) may remotely disable** the program in case the customer fails to comply with his or her part of the contract.

# Software Quality

- Software quality is the degree to which a software product **meets the needs of users**
- High quality software characteristics:
  - i. Easy to learn and use,
  - ii. They meet user needs and
  - iii. They operate safely and reliably
- Poor quality software has **software defects**
- These are errors in software and if not removed they could cause software systems not to meet user needs<sup>3</sup>

# Poor Software Quality

- What causes poor software quality?
  - i. Developers not knowing how to design quality software
  - ii. Pressure to reduce development time to get more time to market these products
- A major ethical dilemma for software development organizations is: “How much additional cost and effort should they spend to ensure that their products and services meet customers’ expectations?”<sup>4</sup>

- Managers face ethical questions of how much money and effort to invest in the development of high-quality software.
- Managers who take short-term, profit-oriented views may feel that any additional time and money spent on quality assurance will only delay a new product's release, resulting in a delay in sales revenue and profits.
- The **unethical perspective** is failure to fix all known defects before putting a product on the market and charging customers for it.<sup>5</sup>

# Software Product Liability

- If a software defect causes injury or loss to users, the injured parties may sue as a result.
- Example: faulty on-board computer in a passenger flight could cause accidents
- Injury or loss can come in the form of physical mishaps and death, loss of revenue, or an increase in expenses due to a business disruption caused by a software failure.
- Software product liability claims are based on strict liability, negligence, breach of warranty, or misrepresentation.<sup>6</sup>

# Safety-critical systems

- These are systems whose failure may cause human injury or death.
- Software development organizations have a standard software development methodology
- It is important not to assume that while developing safety-critical systems, safety will automatically result from following the said methodology.<sup>7</sup>
- A lot needs to be done

## **Liability and Breach of contract,**

- A product warranty assures users that a product meets certain standards of quality.
- Quality warranty may either be directly stated or implied by law.
- Warranties can be oral, written, or inferred from the seller's conduct.
- If the product fails to meet the terms of its warranty, product users can sue for breach of warranty contract.
- Many dissatisfied customers first seek a replacement, a substitute product, or a refund before filing a lawsuit.<sup>8</sup>

# Software Quality Assurance (QA)

- These are methods within the software development cycle designed to guarantee quality of software.<sup>9</sup>
- Software development companies need a formal, standard approach to QA
- Software testing should not be the only QA method.
- Checking for errors throughout the development process should be the target.
- Sadly, many companies mainly rely on testing just before the product ships to ensure some degree of quality which is not always sufficient.

# Types of software service contractual agreements

## 1. A click-wrap agreement

- This agreement is also known as a "click-through" agreement or click-wrap license)
- It is a common type of agreement often used in connection with software licences.

# A click-wrap agreement ...

- Such forms of agreement are mostly found on the Internet, as part of the **installation process** of many software packages.
- Other circumstances where this agreement is sought is while using electronic media.

# A click-wrap agreement ...

- The content and form of click wrap agreements vary widely.
- Most click wrap agreements require the end-user to manifest **his or her assent by clicking an "ok" or "agree" button** on a dialog box or pop-up window.

## Click-wrap agreement ...

- A user **indicates rejection by clicking cancel or closing the window.**
- Upon rejection, the user cannot use or purchase the product or service.
- It is a **take-it-or-leave-it contract** described as a “**contract of adhesion**”
- The contract **lacks bargaining power**, on the side of the buyer forcing one party to be **favoured over the other.**

## 2. Shrink-wrap Licence

- The name "**click-wrap**" came from the use of "**shrink wrap contract**"
- This is commonly used in **boxed software purchases**,

# Shrink-wrap Licence...

- Boxed software products normally come in some wrapping format that requires opening.
- The wrapped boxed software **contains a notice that by “tearing open the shrink-wrap”, the user assents to the software terms enclosed therein**.

# Shrink-wrap contract ...

- Shrink-wrap is considered a type of **passive contract**.
- This is because, the **buyer of a software** is deemed to accept all the conditions by the fact of opening its **shrink-wrapped package**.

# **Shrink-wrap License Terms of Agreement**

- i. Prohibition from making **unauthorized copies,**
- ii. Prohibition from performing any **modification to the licenced software,**
- iii. Prohibition from **reselling the software,**
- iv. Limited use to one or a specified number** of computers,
- v. Limited publisher's liability. The legal implications of a shrink-wrap license are still controversial and far from being standardized.

# Other IT Contractual Agreements

## 3. Body shopping

- **Body shopping** is the practice of consultancy firms **recruiting Information Technology** workers in order to contract their **services out on short-term basis**.

# Body shopping ...

- Body shopping is regarded as **legitimate consultancy** by both the companies that practice it and by the people employed.
- Body shopping is done by those IT services companies that assert that they provide real services (such as **software development**) rather than merely farming out professionals to overseas companies.

## 4. Contingent Workers

- These are individuals taken in to do a job without contractual engagement for long term employment.
- They include independent contractors, temporary workers hired through employment agencies, on-call or day laborers, and on-site workers whose services are provided through contract firms
- A company picks contingent workers to complete projects quickly and cheaply as compared to developing people within the organization<sup>10</sup>

# Contingent Workers...

- Firms use contingent IT workers when their technical staffing needs dwindle
- These workers join teams of full-time employees and other contingent workers for the life of the project and then move on to their next assignment.<sup>11</sup>

# Contingent workers Ethical dilemma

- **Ethical perspective** - these workers are likely to learn corporate processes and strategies that are key to the company's success.
- Preventing contingent workers from passing on such information to subsequent employers is a hard nut to crack.
- This can be damaging if the worker's next employer is a major competitor.<sup>12</sup>

# Advantages of using Contingent Workers

- Savings for the firm – no need to provide benefits such as insurance, retirement plans
- Firms do not incur training costs since many contingent workers are already specialists in particular tasks<sup>13</sup>

# Disadvantages of Using Contingent Workers

- Contingent workers may lack a strong connection to the company they are working for
- The additional skills they learn on the job and the knowledge while working for a particular company are lost assets when they depart after a project completion<sup>14</sup>

## 5. Consultancy

- The end product out of consultancy is very often a **report, not an actual system**
- Consultancy projects can be done for a daily/hourly rate or at a fixed price
- If done at fixed price, contract is much simpler:
- Sums of money involved are usually much smaller

# Content Covered in Lecture 8: Software Contracts

We have been able to cover the following:

1. Defined the terminologies contract and software contract
2. Described the various parts of a software contractual agreement(s)
3. Described the various software contracts available

## 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)