**\Innovation Management**

**Exam 26 January 2021**

**M1.** Segmenting customers according to their age in order to offer personalized discounts is an example of …

* 1st degree price discrimination
* 2nd degree price discrimination
* **3rd degree price discrimination**
* None of the others

**M2.** Complete the following sentence: … are associated to traditional companies, while … are associated to digital platforms.

* **Supply scale economics – Demand scale economics**
* Demand scale economics – Supply scale economics
* Supply scale economics – Supply scale economics
* Demand scale economics – Demand scale economics

**M3.** If you aim at solving the problem of “second” or “recurrent” purchases on your digital platform, which kind of revenue model should you have to adopt?

* Percentual transaction fee
* **Charge for access to the platform**
* None of the other
* Fixed transaction fee

**M4.** Which of the following conditions allow your company to rely on strong barriers to entry?

* Data become obsolete quickly
* **The marginal value of data decreases slowly**
* None of the other
* Your data are derived from public sources

**N1.** Automation bias means (Only one answer is correct)

* A form of sample bias in the data on which machine learning algorithms are trained
* When the analysis run by a software gives us a false sense of security, human disengage from the part of work software is doing.
* None of the previous statements
* **Giving undue weight to the information coming through the monitor…ending up believing information even when it is wrong or misleading.**

**N2.** Which of the following technologies makes a smart connected machine possible? (multiple answer allowed)

* **Machine Learning**
* **Cloud Computing**
* **Internet of Things**
* Additive Manufacturing

**N3.** Which is the greatest challenge for Industrial IoT platforms like GE Predix? Select TRUE statements only. (Only 2 answers are correct)

* Lack of accurate machine learning algorithms
* Diseconomies of scale
* **Interoperability in data generated by the sensors in the single machineries**
* **Capability of codifying the industrial phenomena affecting machineries and complex industrial processes**

**N4.** For vendors machineries, making them “smart and connected” give opportunities for business models based on ... (Only one answer is correct)

* Outsourcing of the machine
* **Helping the client optimize the use of the machinery in the production system through data-driven prescriptions**
* Selling less spare parts
* A “Break and fix” revenue model

**MO1.** Select true statement (Only one is correct).

* **Innovation must be followed by diffusion**
* Technological novelties represent innovations
* Peripherical innovations are a typology of incremental innovation
* Radical are always disruptive

**MO2.** Select true statements (Only 2 answers are correct).

* **Knowledge embedded into organizations represents a determinant of innovation; it determines the emergence of the next paradigm and the players role in the innovation dynamics**
* **Technological competences affect companies’ innovation strategies**
* Creativity is demonstrated to be a driver of innovation
* Knowledge embedded into organizations distinguish companies is source of competitive advantage; it cannot be an obstacle to innovation

**MO3.** Select true statements (Only 2 answer are correct).

* Innovation is always technology-push
* **Technological trajectory is the trade-off solution between technology and market needs. The whole set of these trade-offs define the technological paradigm**
* Paradigm evolution is described by the evolution of performance over time and it is represented by a bell-shaped curve.
* **Technological paradigm determines industry structure**

**MO4.** Select true statements (Only 2 answer are correct).

* Dominant design is due to technological superiority
* Dominant Design emerges always in processes before
* **Dominant design in services is longer stable**
* **Dominant design affects companies’ integration choices**

**MO5.** Select true statements (Only 2 answer are correct).

* **The localization of value and performance as evaluated by the market determines the choices of system integration and, consequently, the emergence of dominant design**
* Dominant design made by COTS components are cheaper and reach more easily market acceptance
* Dominant design made by modular architectures are slower to emerge, but more stable
* **Upstream company vertical integration depends on system modularity, while company downstream vertical integration depends on complementary goods**

**MO6.** Select true statements (Only 2 answer are correct).

* Standards do not affect the emergence of a dominant design
* Standard wars are beneficial for society because force companies to improve their technologies
* **Dynamics of digital innovations could be more affected by standards, since the major role played by network externalities**
* **Being the first mover and achieving a critical mass of users is a way to impose the own standard**

**MO7.** Design platform are (Only 2 answer are correct).

* **a collection of assets that are proven to work together and that might serve as the basis for developing a family of multiple derivative systems**
* **the basis for those specific architectural choices that concern the study of modularity with respect to differentiation, system chances and standardization**
* so beneficial that counterpart costs are neglectable; flexibility is too important
* Not particularly critical for digital technologies. Indeed, they (design platforms) are not considered a design pillar in digital context

**MO8.** Select true statements (Only 2 answer are correct).

* Patents represent the best solution for knowledge appropriability independently on the sector
* **Governments through patents have to authorize 20 years-old monopolies, otherwise companies would not invest R&D efforts in some sectors**
* Exploiting the monopolistic right is the only way to make a patent fruitful
* **Digital (mostly intangible) artifacts pose many problems to patent protection; so much that the legislation is quickly adapting to technological changes in this sector**

**OA1.** With reference to the GAP case study, how do you evaluate the option of Gap to sell garments on Amazon in reference to its objectives to use big data analytics to predict customer preferences and decide what to design and produce accordingly?

**OA2.** Discuss the Christensen model.