

Chapter 9

Ethics and Scientific Integrity in Research: The Undeniable Process in the Development of the Higher Education System

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ABSTRACT

The improving the state of research ethics among the scientific community requires attention to the necessary infrastructure and quality in research. This chapter considers the training of ethical principles in the research process in curricula as a neglected aspect of research activities and it considers ethics and scientific integrity as the most important aspect of promoting academic excellence. The first step to prevent ethical abuse in research and to internalize scientific excellence in universities considers the formation of values or the formulation of an ethics and scientific integrity charter as the main solution. Therefore, this chapter first considers the reason for ethics and scientific integrity in research and tries to establish a link between these. Then it considers the position of ethics and scientific integrity in research in higher education centers. In the following, the higher education system is faced with two ethical discourses. Finally, it deals with standardization and drawing a vision of the ethics in the higher education system.

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INTRODUCTION

Higher education is the manifestation of the growth and development of information and knowledge in societies and provides the power of societies in the field of international competition. Due to its inherent importance, this growing phenomenon is increasingly being noticed by societies. At the same time, due to the diversity of the needs of societies, it includes various functions such as education, research and human resource development (Kitagawa & Oba, 2010). Among the various functions of higher education, the function of research has become very important; Because the material and spiritual growth and prosperity of human civilizations and societies depends on research. However, if the research is properly guided and is not placed on the path of spiritual and ethical development, it is considered a factor of destruction. Therefore, there should be a guide or instruction that protects this function from deviation, and generally this responsibility rests with scientific ethics in general and ethics in research in particular (Vallance, 2004). In this regard, although many common elements of ethics and integrity are shared between different fields, there are also specific and unique challenges for each field in terms of how to deal with ethics and scientific integrity in research (Iphofen, 2020). In the context of very rapid scientific-technological development, this gradually covered wider areas and included issues related to consent, privacy, data management, fraud and plagiarism (Sleem et al, 2010).

On the other hand, the introduction of information and communication technology (ICT) in the educational system and research in this field raised a set of ethical risks related to the access and exchange of information in the form of ethical issues in the learning environment (Jafari & Alamolhoda, 2021). In this regard, these general issues should be understood and revealed in specific cases. However, while one should be open to the possibility of using good ideas and practices across disciplines, It should equally be able to resist over-weak generalizations or intentional or reckless “ethical imperialism” (Schrag, 2010).

Although ethical issues have been raised in the higher education system since the 1970s, issues that we now call “scientific ethics and integrity” have become common concerns in the scientific and decision-making communities in the higher education system. Therefore, the concept of ethical research in the higher education system has been expanded and includes questions. Faced with a number of proven cases of misconduct, the international community is faced with the need to regulate in order to maintain public trust and create appropriate frameworks. Therefore, at the international level, scientific integrity, which initially focused more on forgery and plagiarism, gradually included questions whose scope is epistemological (especially in the quality of knowledge produced, social responsibility and values and goals of science). Today, we can confirm that ethical issues and scientific integrity in

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