

Ideal Internet usage and academic achievement: finding the right balance

María Ladrón de Guevara Rodríguez¹

Luis Alejandro Lopez-Agudo²

Claudia Prieto-Latorre³

Oscar David Marcenaro-Gutierrez⁴

Abstract

Younger generations have grown up with the Internet. Far from being a purely information search engine, the Internet has become fully integrated into the way children live and learn today. It has changed the way children interact with each other and carry out their daily tasks. In this sense and given that children spend more and more time playing video games and on social networks, we have tried to analyse the impact that daily Internet use may have on 6th grade primary school students' academic performance in Spain. To do so, we have used interval multiobjective programming, which allows us to identify usage patterns and students' traits that maximise their academic performance. Our results show that while daily use of social networks impairs academic performance, using the Internet to listen to music or search for information on other topics of interest helps to maximise students' academic achievement.

Keywords: Internet use; academic performance; econometrics; interval multiobjective programming.

JEL Codes: O30, C01.

Acknowledgements: This work has been partly supported by FEDER funding (under Research Project PY20-00228-R); *Ministerio de Ciencia e Innovación* (under Research Project PID2020-119471RB-I00) and the Andalusian Regional Government (SEJ-645). We also acknowledge the scholarship FPU20/01509 of the *Ministerio de Universidades* and the training received from the *Programa de Doctorado en Economía y Empresa* of the *Universidad de Málaga*. The authors also acknowledge the data provided by the *Agencia Canaria de Calidad Universitaria y Evaluación Educativa*.

¹ Programa de Doctorado en Economía y Empresa, Universidad de Málaga, Málaga, Spain. Departamento de Economía Aplicada (Estadística y Econometría). Facultad de Ciencias Económicas y Empresariales. Universidad de Málaga. Plaza de El Ejido s/n, 29013, Málaga (España). E-mail: marialadron@uma.es. Tel.: +34 952137003. ORCID: [0000-0002-5087-422X](https://orcid.org/0000-0002-5087-422X)

² Departamento de Economía Aplicada (Estadística y Econometría). Facultad de Ciencias Económicas y Empresariales. Universidad de Málaga. Plaza de El Ejido s/n, 29013, Málaga (España). E-mail: lopezagudo@uma.es. Tel.: +34 952132399. ORCID: [0000-0002-0906-3206](https://orcid.org/0000-0002-0906-3206)

³ Departamento de Economía Aplicada (Estadística y Econometría), Facultad de Ciencias Económicas y Empresariales, Universidad de Málaga. Plaza de El Ejido s/n, 29013, Málaga (España). Email: claudiaprieto@uma.es. ORCID: [0000-0002-6510-3057](https://orcid.org/0000-0002-6510-3057)

⁴ Departamento de Economía Aplicada (Estadística y Econometría). Facultad de Ciencias Económicas y Empresariales. Universidad de Málaga. Plaza de El Ejido s/n, 29013, Málaga (España). E-mail: odmarcenaro@uma.es. Tel.: +34 952137003. ORCID: [0000-0003-0939-5064](https://orcid.org/0000-0003-0939-5064)