

PERSONAL INFORMATION

Wojciech HARDY, PhD



Faculty of Economic Sciences, University of Warsaw; Długa St. 44/50, 00-241 Warsaw, Poland
 Member of: Association for Cultural Economics Poland (ACEP);
 Digital Economy Lab UW (DELab UW);
 Interdisciplinary Centre for Labour Market and Family Dynamics (LabFam)

✉ wojciechhardy@uw.edu.pl

Sex Male | Date of birth 23/03/1989 | Nationality Polish

WORK EXPERIENCE

2020 – Present

Assistant Professor

Faculty of Economic Sciences, University of Warsaw (Poland, www.wne.uw.edu.pl)

Current teaching: “Music, Theatre and Digitisation. Economics of culture and digital entertainment” seminars, Web scraping, Cultural Economics

Research projects: Principal Investigator in National Science Centre project: “Economic analysis of competition for attention - the case of digital entertainment sectors” (2021-2025); Researcher in ERC Consolidator Grant project (PI: Anna Matysiak): “Globalization- and Technology-Driven Labour Market Change and Fertility (LABFER)”

2018 – ongoing

Analyst

Digital Economy Lab, University of Warsaw (Poland, www.delab.uw.edu.pl)

Ongoing activities: Monitoring trends in the creative sectors and the impacts of digital technologies; Studies of unauthorised online file-sharing and its impact on legal distribution.

Past activities: moderated online Digital Europe Economic (DEEcon) seminar series; researcher in SharON project on sharing economy; impact analyses and assessment of the short-term rental markets

2015 – 2018

Economist

Institute for Structural Research (IBS; Warsaw, Poland, www.ibs.org.pl/en)

Main research topics: (as PI) project on impact of digital piracy on previously unstudied markets (games, TV shows, comic books); report on the Polish music industry for the Ministry of Cultural and National Heritage; studies on the distribution of job tasks across the world using EU LFS, PIAAC, STEP and O*NET data; evaluation of support schemes for the NEET youth in Poland; other studies.

2012 – 2015

Research Assistant

Group for Research in Applied Economics (GRAPE; Warsaw, Poland, www.grape.org.pl)

Main research topics: internet file-sharing (National Science Centre funded project “Economics of digital intellectual property rights infringement”), labour reallocation (National Science Centre funded project “The scale and determinants of between-sectoral labour reallocation”), gender inequality.

2013

Consultant/Temporary

World Bank (Polish office; Warsaw, www.worldbank.org)

Activities: data analysis and research (topic: saving patterns of the corporate sector).

Other

Prior teaching

2014 – 2019

“Probability calculus”, “Seminar: Digital transformation of enterprises – Digital Economy”, “Web Scraping in R”, “Statistical Analysis in R”, “Importing data in R”, “Data visualisation in R”, “Financial Market Modelling (in Stata)” (Faculty of Economic Sciences, University of Warsaw)

EDUCATION AND TRAINING

2013 – 2019

PhD studies
Faculty of Economics, University of Warsaw, Poland

Topic: Digital disruption in the creative industries: the case of the American comic book market.

Other: Faculty grant (DSM) awarded for research “Does YouTube displace music sales? Evidence from a natural experiment.”

2008 – 2013

Bachelor and Master of Arts
Faculty of Economics, University of Warsaw, Poland

Master thesis: How to perfectly discriminate in a crowd? A theoretical model of crowdfunding. (published as WNE Working Paper No. 16/2013).

Bachelor thesis: Length of the Questionnaire and the Precision of Response to Quantitative Questions in Surveys (published in Polish in Ekonomista 2015/5)

 PERSONAL SKILLS

Mother tongue(s)

Polish

Other language(s)

 English (Cambridge English: Proficiency – C2, grade A);
 Russian (Post-porogovj exam – B2, result: 86.8%)

Skills

- Experience in studying the digital side of creative sectors, with a focus on attention economics, copyright infringement issues and collecting data directly from the internet using automated tools. Knowledge of the current scientific literature on these topics.
- Experience in studying the effects of technology on jobs and labour markets, including knowledge of the current scientific literature and methods for these topics, the available data, their issues and approaches to tackling them.
- Experience in survey design, international research, work with large datasets and data harmonisation.
- Experience working with European data (e.g. EU LFS, EU SILC, ESCO databases), international surveys (e.g. PIAAC, STEP), and US data (O*NET).
- Experience in econometric and statistical methods and approaches, including creation of cross-country indices, econometric modelling, statistical testing and experimental research.
- Proficient use of web scraping tools in R (extensive use in own research studies and web scraping course teaching for students of various background).
- Proficient command in Stata and R, basic of other statistical software/languages for data analysis, e.g. SAS (Data Mining Certificate Program at University of Warsaw); Good command of Microsoft Office™ tools.
- Website management in WordPress.

SELECTION OF KEY PROJECTS

Principal Investigator (2021-ongoing): <i>Economic analysis of competition for attention - the case of digital entertainment sectors.</i> National Science Centre OPUS grant.
Researcher (2019): <i>Comprehensive analysis of the Polish music sector.</i> Polish Ministry of Culture and National Heritage.
Principal Investigator (2017-2020): <i>There but not back again? Switching between the authorised and unauthorised sources of cultural goods.</i> National Science Centre Preludium grant.
Researcher (2021-ongoing): <i>Globalization- and Technology-Driven Labour Market Change and Fertility (LABFER).</i> ERC Consolidator Grant project (PI: Anna Matysiak)
Economist (2014-2018): <i>Jobs and Development: Creating Multi-Disciplinary Solutions.</i> Network for Jobs and Development World Bank Initiative.
Economist (2016-2019): <i>Evaluation of support provided for young people under the Operational Programme Knowledge Education Development.</i> Polish Ministry of Development.
Research assistant (2011-2015): <i>Economics of digital intellectual property rights infringement.</i> National Science Centre SONATA grant.
Other with funding (as researcher): World Bank background work for the "Growing United: Upgrading Europe's Convergence Machine" report (World Bank, 2017; IBS project) Airbnb in Warsaw: market characteristics and challenges for the city (City of Warsaw, 2019). SharOn: Opportunities for European Entrepreneurs in the Sharing Economy (COSME, 2019).

SELECTION OF PUBLICATIONS

Peer-reviewed journals	<ul style="list-style-type: none"> ▪ Rożynek, S. and Hardy, W. (2023), <i>Incentivising 'pirates' to pay – An experiment with comic book readers.</i> Information Economics and Policy 64, 101045. ▪ Lewandowski, P., Park, A., Hardy, W., Du, Y. and Wu, S. (2022), <i>Technology, Skills, and Globalization: Explaining International Differences in Routine and Nonroutine Work Using Survey Data.</i> World Bank Economic Review 36 (3): 687–708. ▪ Hardy W. (2021), <i>Displacement from piracy in the American comic book market.</i> Information Economics and Policy 57, 100927. ▪ Hardy W. (2021), <i>Brace yourselves, pirates are coming! The effects of Game of Thrones leak on TV viewership.</i> Journal of Cultural Economics. ▪ Lewandowski P., Keister R., Hardy W., Górka S. (2020), <i>Ageing of routine jobs in Europe,</i> Economic Systems 44 (4). ▪ Tyrowicz J., Krawczyk M., Hardy W. (2020), <i>Friends or foes? A meta-analysis of the relationship between "online piracy" and the sales of cultural goods,</i> Information Economics and Policy 53, 100879. ▪ Krawczyk M., Tyrowicz J., Hardy W. (2020), <i>Online and physical appropriation: evidence from a vignette experiment on copyright infringement,</i> Behaviour & Information Technology 39 (4), 481-496. ▪ Hardy W., Krawczyk M., Tyrowicz J. (2019), <i>File sharing as conditional cooperation: evidence from a framed field experiment,</i> Applied Economics Letters 26 (2), 91-96. ▪ Hardy W., Kielczewska A., Lewandowski P., Magda I. (2018), <i>Job retention among older workers in central and Eastern Europe,</i> Baltic Journal of Economics 18 (2). ▪ Hardy W., Keister R., Lewandowski P. (2018), <i>Educational upgrading, structural change and the task composition of jobs in Europe,</i> Economics of Transition 26(2), 201-231. ▪ Krawczyk M., Tyrowicz J., Kukla-Gryz A., Hardy W. (2017), <i>Do pirates play fair? Testing copyright awareness of sports viewers,</i> Behaviour & Information Technology 36(6). ▪ Hardy W., Keister R., Lewandowski P. (2016), <i>Do entrants take it all? The evolution of task content of jobs in Poland,</i> Ekonomia 47. ▪ Krawczyk M., Tyrowicz J., Kukla-Gryz A., Hardy W. (2015), <i>"Piracy is not theft!" Is it just students who think so?,</i> Journal of Behavioral and Experimental Economics 54, 32-39. ▪ Hardy W. (2015), <i>Długość kwestionariusza a precyzja odpowiedzi na pytania ilościowe w badaniach ankietowych,</i> Ekonomista 2015/5.
Reports	<ul style="list-style-type: none"> ▪ Hardy, W. (2023), <i>A guide to AI in education, or everything you need to know (for starters).</i> [pol. Przewodnik po AI w edukacji, czyli wszystko co musisz wiedzieć (na start)]. DELab AIDE publication,

	<p>https://www.delab.uw.edu.pl/wp-content/uploads/2023/04/delab_ainauczelni-1.pdf</p> <ul style="list-style-type: none"> ▪ Sokółowski J., Hardy W., Lewandowski P., Wyrzykowska K., Messyasz K., Szczepaniak K., Frankiewicz-Olczak, I. (2019), <i>Comprehensive study of the Polish music market (orig. Kompleksowe badanie polskiego rynku muzycznego)</i>. Report for the Ministry of Culture and National Heritage, Poland. ▪ Gyódi K., Hardy W., Mazur J. (2019), <i>Airbnb in Warsaw. Market characteristics and challenges for the city. (orig. Airbnb w Warszawie. Charakterystyka rynku i wyzwania dla miasta)</i>. DELab report for the City of Warsaw. ▪ Hardy W., Kalinowski H., Palczyńska M., Smoter M. (2019), <i>The Impact of the Support Offered to Young People under the Operational Programme Knowledge Education Development. Second Thematic Report</i>. (red.) Iga Magda. Ministry of Economic Development, Poland. ▪ Baran J., Hardy W., Kalinowski H. (2018), <i>The Impact of the Support Offered to Young People under the Operational Programme Knowledge Education Development. Third Report of Outcome Indicators Measurement</i>. (ed.) Iga Magda. Ministry of Economic Development, Poland. ▪ Górka S., Hardy W., Keister R., Lewandowski P. (2017), <i>Age, tasks and skills in European Labour Markets. Background Paper for the World Bank report "Growing United: Upgrading Europe's Convergence Machine"</i>. IBS Research Report 04/2017. ▪ Górka S., Hardy W., Keister R., Lewandowski P. (2017), <i>Tasks and skills in European Labour Markets. Background Paper for the World Bank report "Growing United: Upgrading Europe's Convergence Machine"</i>. IBS Research Report 03/2017. ▪ Baran J., Hardy W., Kalinowski H. (2017), <i>The Impact of the Support Offered to Young People under the Operational Programme Knowledge Education Development. Second Report of Outcome Indicators Measurement</i>. (ed.) Iga Magda. Ministry of Economic Development, Poland.
PhD Thesis	<ul style="list-style-type: none"> ▪ Hardy W. (2019), <i>Digital disruption in the creative industries: the case of the American comic book market</i>. PhD thesis defended at the Faculty of Economic Sciences, University of Warsaw.
Working Papers	<ul style="list-style-type: none"> ▪ Matysiak, A., van der Velde, L. and Hardy, W. (2023), <i>Structural Labour Market Change and Gender Inequality in Earnings</i>. WNE Working Paper 12/2023 (419). ▪ Hardy, W., Paliński, M. and Rożynek, S. (2022), <i>Roblox and the Market for Virtual Experiences</i>, DELab Working Paper 3/2022. ▪ Hardy W. (2020), <i>Consumer switching costs in a market with legal and pirate providers</i>, IBS Working Papers, No. 08/2020. ▪ Lewandowski P., Park, A., Hardy, W., Du, Y. (2019), <i>Technology, Skills, and Globalization: Explaining International Differences in Routine and Nonroutine Work Using Survey Data</i>, IZA Discussion Paper 12339. ▪ Hardy W., Krawczyk M., Tyrowicz J. (2014), <i>Internet piracy and book sales: a field experiment</i>. WNE Working Papers, No. 23/2014 (140). ▪ Hardy W., Krawczyk M., Tyrowicz J. (2013), <i>Why is online piracy ethically different from theft? A vignette experiment</i>. WNE Working Papers, No. 24/2013 (109). ▪ Hardy W. (2013), <i>How to perfectly discriminate in a crowd? A theoretical model of crowdfunding</i>. WNE Working Papers, No. 16/2013 (101).
Research blogs	<ul style="list-style-type: none"> ▪ <i>Brace yourselves, pirates are coming! The effects of Game of Thrones leak on TV viewership</i>. Economists Talk Art, 02/16/2021. URL: https://economiststalkart.org/2021/02/16/brace-yourselves-pirates-are-coming-the-effects-of-game-of-thrones-leak-on-tv-viewership/ ▪ <i>„Culture and creativity in times of COVID-19” – music sector</i>. DELab UW blog, 04/15/2020. URL (in Polish): https://www.delab.uw.edu.pl/kultura-i-tworczosc-w-czasach-covid-19-sektor-muzyczny/. Twitter thread summary (in English): https://twitter.com/WHardyPL/status/1250700015120629761 ▪ <i>An ageing population needs older workers</i>. World Bank Blog, 05/26/2016. URL: https://blogs.worldbank.org/jobs/ageing-population-needs-older-workers

ADDITIONAL INFORMATION

Membership

- 2022 – present: Co-founder and co-leader of ACEP (Association for Cultural Economics Poland)
- 2018 – Present: Member of ACEI (Association for Cultural Economics International)
- 2013 – 2014: Member of PSEAP (Polish Association of Law & Economics)
- 2011 – 2013: Member of the Students' Association of Institutional Economics (pol. Koło Naukowe Ekonomii Instytucjonalnej), University of Warsaw
- 2011 – 2012: Editor / Chief editor at www.rpg.gildia.pl.
- 2008 – 2009: Member of Jeff Buckley Polish Tribute association.

Workshops, summer schools, courses

- 2018: Making Sense of Climate Science Denial, edX online course (Global Change Institute, University of Queensland; final grade: 99%).
- 2018: Young Researchers Workshop at the 20th International Conference on Cultural Economics (ACEI), Melbourne, Australia. Presented: *Pre-release leaks as one-time incentives for switching to unauthorised sources of cultural content*.
- 2016: The Art of Presenting Research and Results workshop, Warsaw, Poland.
- 2014: Lifecourse CenEA Workshop, Business Centre Club, Warsaw, Poland.
- 2014: European School of New Institutional Economics, Cargese, France. Presented: *How to perfectly discriminate in a crowd? A theoretical model of crowdfunding*.
- 2014: Ce2 CenEA Workshop, Business Centre Club, Warsaw, Poland.
- 2014: Experimetrics Workshop, University of East Anglia, Norwich, England.
- 2013: SciWrite: Writing in the Sciences, Stanford Online course (final grade: 91%).
- 2013: BRing - Social Sciences for the Economy workshop and training, Warsaw, Poland.
- 2013: The Future of Storytelling, iversity.org online course.

Selected conferences / seminars

2023

- CENTRAL webinar series "Artificial Intelligence – friend or foe?". Presented (online): "AI and labour market".
- Faculty of Economic Sciences internal conference, Warlity Wielkie, Poland. Presented: Fewer streams but longer songs? Attention economics and the pandemic effects on music listening.
- 18th European Policy for Intellectual Property Conference, Cracow, Poland. Presented: Promoting music through user-generated content – TikTok effect on music streaming.
- 22nd International Conference on Cultural Economics (ACEI). Bloomington, IN, USA. Presented 1: Few streams but longer songs? Attention economics and the pandemic effects on music listening. Presented 2: How productive are Patreon creators and what rewards do they offer. Moderated special session:
- Digitalization under the closer look of science seminar, Poland. Presented (online): The impact of COVID-19 on how people spend their time during the day – based on YouTube and Google Trends data.

2022

- European Population Conference 2022. Groningen, Netherlands. Presented (online): Digitalisation, Changing Demand for Skills and the Gender Inequality in Earnings.
- Tenth European Workshop on Applied Cultural Economics (EWACE), Turin, Italy. Presented: Protecting the sales by delaying piracy – empirical evidence from video games and DRM.
- Warsaw International Economic Meeting 2022 (WIEM), Warsaw, Poland. Presented: Promoting music through user-generated content – TikTok effect on music streaming.

2021

- 21st International Conference on Cultural Economics (ACEI). Presented (online): Using YouTube music charts and Google Trends to track social changes since the COVID-19 outbreak.
- Digitalization under the closer look of science seminar, Poland. Presented (online): The impact of COVID-19 on how people spend their time during the day – based on YouTube and Google Trends

- data.
- KONline 2021, Poland. Presented: Rynek komiksu amerykańskiego w dobie cyfryzacji (eng. American comic book market in times of digitisation).
- 2020
- Faculty of Economic Sciences internal conference, Kazimierz, Poland. Presented (online): Video games and DRM – protecting sales by delaying piracy
 - Warsaw International Economic Meeting 2020 (WIEM), Warsaw, Poland. Presented (online): Video games and DRM – protecting sales by delaying piracy
 - Economics of Copyright in the Cultural and Creative Industries Workshop (CIPPM), Bournemouth, United Kingdom. Presented: *Internet piracy and video game sales – Evidence from two studies.*
- 2019
- 17th Interdisciplinary European Conference on Entrepreneurship Research (IECER) “Entrepreneurship for a Better World”, Utrecht, Netherlands. Accepted (not presented due to unrelated reasons, but with participation): *Digital disruption in the creative industries: the case of the American comic book market.*
 - Ninth European Workshop on Applied Cultural Economics (EWACE), Copenhagen, Denmark. Presented: *Does digital piracy of comic books displace sales? Evidence from a survey of comics readers.*
 - Komunikacja-Media-Kultura w erze nowych mediów, Warsaw, Poland. Presented: *Changes in the audiovisual market in the times of digitalisation – competing with piracy, new intermediaries and current trends (in Polish).*
- 2018
- CopyCamp 2018, Warsaw, Poland. Presented: *“No evidence of relationship” does not equal “evidence of no relationship” – a few words on the media misinterpretation of the “buried” EU report.. (Recording)*
 - The 20th Annual Mallen Scholars and Practitioners Conference in Filmed Entertainment Economics, Potsdam/Berlin, Germany.
 - 35th Annual Conference of the European Association of Law and Economics (EALE), Milan, Italy. Presented: *Pre-release leaks of content as one-time incentives for switching to unauthorised sources.*
 - 4th International DELab UW Conference: Rethinking digitalization of economies and societies, Warsaw, Poland. Presented: *Does unauthorized digital distribution of comic books displace sales? Evidence from readers survey.*
 - 20th International Conference on Cultural Economics (ACEI), Melbourne, Australia. Presented: *Pre-release leaks as one-time incentives for switching to unauthorised sources of cultural content.*
 - Warsaw International Economic Meeting (WIEM) 2018, Warsaw, Poland. Presented: *Does unauthorized digital distribution of comic books displace sales? Evidence from readers survey.*
 - 2018 Jobs & Development Conference. Bogota, Colombia. Presented: *Routine and ageing? The intergenerational Divide In The Deroutinisation of Jobs in Europe.*
- 2017
- 2017 IBS Jobs Conference: Technology, demography and the global division of labour. Warsaw, Poland.
 - Internet Governance Forum Poland 2017, Warsaw, Poland. Speaker in the panel: Creators and users among online platforms and blockchains – the future of collective governance. (Recording)
 - CopyCamp 2017, Warsaw, Poland. Presented: *Brace yourselves, pirates are coming! The long-term effects of Game Of Thrones leak on TV viewership. (Recording)*
 - 3rd International DELab UW Conference: Ongoing digitalization of economies and societies. Warsaw, Poland. Presented: *Brace yourselves, pirates are coming! The long-term effects of Game Of Thrones leak on TV viewership.*
 - Warsaw International Economic Meeting 2017 (WIEM), University of Warsaw, Warsaw, Poland. Presented: *Brace yourselves, pirates are coming! The long-term effects of Game Of Thrones leak on TV viewership.*
 - 5th European User Conference for EU-Microdata, Mannheim, Germany. Presented: *Job Retention among Older Workers in Central and Eastern Europe.*
- 2015
- 2015 Scientific Days (pol. *Dni Nauki 2015*), Avangarda, Warsaw, Poland. Presented: *Internet „piracy” – what we have learned from three years of experiments and research (pol. „Piractwo” internetowe czyli czego nauczyły nas trzy lata eksperymentów i badań).*

- Warsaw International Economic Meeting 2015 (WIEM), University of Warsaw, Warsaw, Poland. Presented: *Does YouTube displace music sales? Evidence from a natural experiment.*
- 2014
 - CopyCamp 2014, Warsaw, Poland. Presented: *Internet piracy and book sales: a field experiment. (Recording)*
 - GRAPE Conference: „Piracy” on the book market – what we know and what we don’t (pol. Konferencja GRAPE: „Piractwo” na rynku książki – co wiemy a czego nie?), Warsaw, Poland. Presented: *E-book, audiobook and book – friends or foes? (pol. E-book, audiobook i książka – Wrogowie czy przyjaciele?)*
 - Warsaw International Economic Meeting 2014 (WIEM), University of Warsaw, Warsaw, Poland.
 - 31st Annual European Association of Law & Economics conference, Aix-en-Provence, France. Presented 1: *Internet piracy and book sales: a field experiment.* Presented 2: *“Piracy is not theft!” Is it just students who think so?*
 - The 17th World Congress of the International Economic Association, Dead Sea, Jordan. Presented: *Why is online piracy ethically different from theft? A vignette experiment.*
 - Royal Economic Society conference, University of Manchester, Manchester, England. Presented: *Why is online piracy ethically different from theft? A vignette experiment.*