







# INTERNATIONAL CONFERENCE MEASURING DEVELOPMENT IN TURBULENT TIMES

November 28-29, 2017 Bucharest, Romania



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# Characteristics of the Digital Divide in Romania and Differences in Internet Use in Comparison with Internet Use in Europe

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## Introduction

- The paper investigates the digital divide in Romania and the difference in internet use for various categories of people in comparison with the EU
- The digital divide >> one of the most important phenomena in the development of the digital society (internet access & differentiated use)
- Quantitative data from representative surveys (the National Institute of Statistics in Romania & Eurostat)















## Approaches on digital divide

- The growth approach (inequality determined by growing social differences)
- The denial approach
- The disappearing digital divide (similar usage patterns)
- ➤ The digital differentiation approach (disparities due to distinct conditions) >> ubiquitous internetting (Van Dijk & Hacker, 2003; Mcwhorter, 2010)















- Internet access
  - Psychological access (no experience due to fear or lack of interest)
  - Material access
  - Skills access (absence of digital skills)
  - Usage access (privation of significant usage opportunities)
- ➤ Digital divide the gap between individuals, households or regions at various socio-economic levels with regard to access opportunities, as well as to different ways of using the Internet (OECD, 2001).















- ➤ Lack of access disadvantages in financial, educational, cultural resources, political information & participation, health & well-being, social capital & inclusion (Livingstone & Helsper, 2007; Friemel, 2016).
- ➤ **Digital differentiation** some internet activities bring more advantages, development resources, chances for career, work, education, social status than others that are mainly entertaining or detrimental to users (Hargittai & Hinnant, 2008).
- ➤ Uses & gratifications theory cognitive needs; affective needs; personal & social integrative needs; tension release needs (Katz, Gurevitch & Haas, 1973; Katz et al., 1974)















#### Types of internet users

- laggards (occasional users only for internet services);
- confused & adverse users (low usage, high variability, low use for private purposes, confusion about services);
- advanced users (frequent use, shop, use services, eGovernment);
- followers (frequently, use services and eGovernment, do not shop online);
- non-internet users (Ortega Egea et al., 2007).
- ➤ **Digital skills operational skills** (using the internet technology); **formal internet skills** (navigation and orientation), **information internet skills & strategic skills** (using the internet as a mean to achieve goals and improve one's status), (Van Deursen & Van Dijk, 2010).















- Digital differentiation Factors
  - Gender
  - Age
  - Socio-economic aspects
  - Income
  - Employment status
  - Education
  - ICT experience















# Methodology

## Objectives

- Assessing the characteristics of the digital divide in Romania
- Comparing the digital divide on different social groups in Romania, with other countries from the EU28
  - ✓ Access & usage (for different social groups defined by gender, status, area of residence, age category).
- Quantitative data secondary data analysis
- The National Institute of Statistics & Eurostat







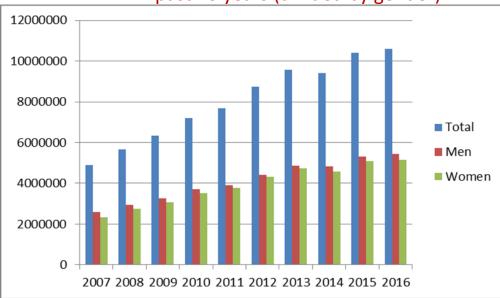








Fig 1. People from Romania (16-74 years of age) who have ever used the internet, over the past 10 years (divided by gender)



- in 2016, 65% of the households in RO had access to internet at home vs. EU28 (85%) + 65.5% of them being located in urban areas

- continuous increase
- 72%(in 2016) used the internet in Ro
- -71 % of all individuals used the internet every day or almost every day (EU28) vs. 42 % in RO
- consistent gender gap (~5%)







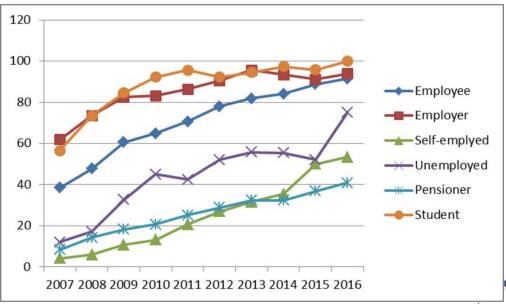








Fig 2. The percentage of households with internet access, divided by the status of the house provider ("the head of the house")



- ascendant trend of internet access in the case of pensioners (past 3 years)
- a rapid increase in internet access for the unemployed (the highest, past 3 years)
- moderate increase for those active on the labor market (level of saturation)







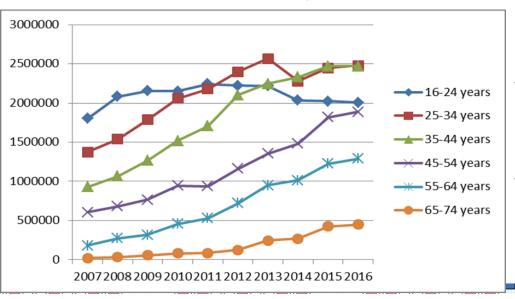








Fig 3. Households with internet access, divided by the age group of the house provider ("the head of the house")



- digital gap between younger and older population
- older people use internet to a lesser extent than the younger ones
- a larger increase in the internet use at older people, (55+ and also 65+) in the past 3 years







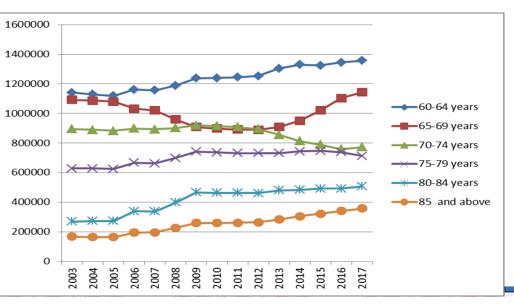








Fig 4. The evolution of older population in Romania over the last 15 years



- a larger increase for the categories 65-69 years and 80 years and above (past 15 years)
- Ro after 2040, the highest median age among European countries
- lack of data on internet use at people 75+
- difficult to discuss the digital divide between older-old and younger-old







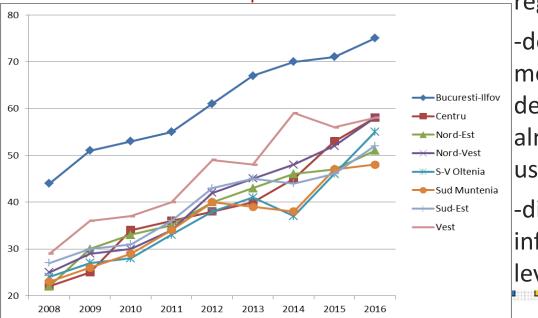








Fig 5. The percentage of households with internet access, divided by the regions of development in Romania



- the gap of internet use between regions in Romania has increased

- -developed regions have significant more internet users than the less developed ones >> Bucharest-Ilfov almost a double number of internet users
- -different opportunities, access to information, access to the labor market, level of connectiveness in general









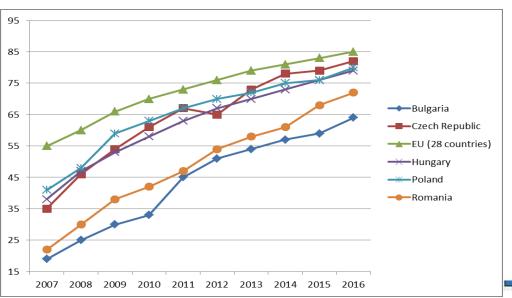






#### Results - Digital divide in Romania relative to countries from Eastern Europe

Fig 6. The percentage of internet users (16-74 years of age) in different countries from the Eastern European area, relative to EU28 mean



- -Bulgaria & Romania have a lesser internet spread within the population
- -Bulgaria & Romania show the most accelerate trend in internet access over the past 10 years
- managed to reduce the gap when compared to the EU28 from 40 % to ~10 % (2010-2016)







Country/Year	Digital behaviors	2013	2014	2015	2016
Bulgaria	Emails (send/receive)	43	44	44	43
	Online calls	34	46	47	48
	Social networks	37	40	42	45
	Uploading content to be shared		19	21	21
	Looking online for information	35	41	35	38
	Reading news online (sites, newspapers)	38	41	40	41
	Internet banking	5	5	5	4
Czech Republic	Emails (send/receive)	70	74	76	77
	Online calls	39	36	33	33
	Social networks	36	40	41	45
	Uploading content to be shared		15	19	33
	Looking online for information	63	69	68	74
	Reading news online (sites, newspapers)	63	69	70	67
	Internet banking	41	46	48	51
EU (28)	Emails (send/receive)	67	68	69	71
	Online calls	25	29	29	32
	Social networks	43	46	50	52
	Uploading content to be shared		26	29	28
	Looking online for information	59	64	61	66
	Reading news online (sites, newspapers)	48	52	54	58
	Internet banking	42	44	46	49
Hungary	Emails (send/receive)	68	71	68	73
	Online calls	28	40	40	42
	Social networks	56	60	61	66
	Uploading content to be shared		37	42	36
	Looking online for information	58	66	61	70
	Reading news online (sites, newspapers)	60	65	62	70
	Internet banking	27	31	34	35
Poland	Emails (send/receive)	51	53	54	58
	Online calls	24	28	28	28
	Social networks	35	37	41	44
	Uploading content to be shared		12	12	15
	Looking online for information	45	50	42	57
	Reading news online (sites, newspapers)	27	47	47	58
	Internet banking	32	33	31	39
Romania	Emails (send/receive)	42	43	43	42
	Online calls	10	23	24	27
	Social networks	33	36	44	44
	Uploading content to be shared		14	21	18
	Looking online for information	26	36	26	35
	Reading news online (sites, newspapers)	29	38	37	38
	Internet banking	4	4	5	5

Table 1. Data on digital behaviors people declared they had performed on the internet in the past three months in Romania and countries from the Eastern Europe, relative to EU28 average level



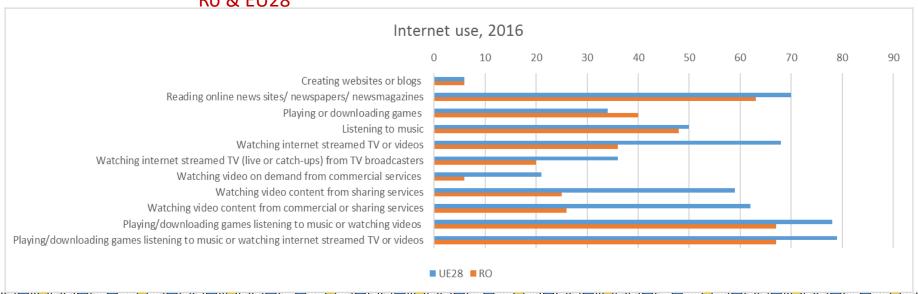






#### Results - Digital divide in Romania relative to EU28 mean

Fig 7. The percentage of internet activities (individuals who used internet in the last 3 months), Ro & EU28









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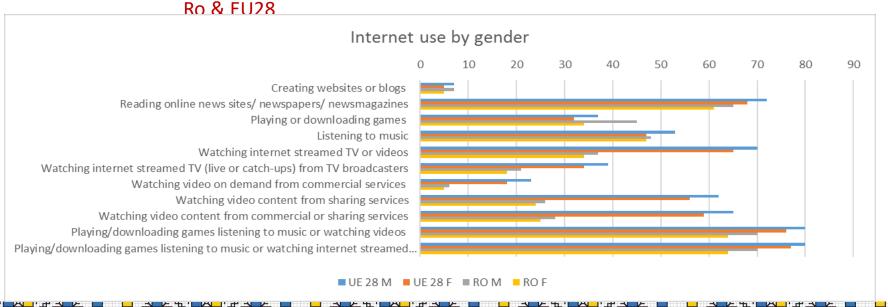






#### Results - Digital divide in Romania relative to EU28 mean

Fig 8. The percentage of internet activities by gender (individuals who used internet in the last 3 months),









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## **Conclusions**

- Ascending trend in internet use, but with a gender gap
- The trends by age & status show that the internet access became less a matter of costs and accessibility and more a matter of opportunity, personal skills and motivation
- The digital divide in terms of internet access tend to be diminished in time between different age groups and the digital divide concept will stand more on differences in use and the type of applications people use at different stages in their lives
- The gap of internet use between regions in Romania has increased during past ten years this translating in different opportunities for the population















## **Conclusions**

- At a regional level Bulgaria and Romania show the most accelerate trend in internet access over the past 10 years
- Low percentages on all internet behaviors in Romania, in comparison to the EU28 average level
- The level of increase on internet behaviors does not correspond to the exponential increase in the internet access at the Romanian population
- Differentiated use by gender, age, status, socio-economic context
- The digital gap is defined more and more in terms of digital behavior than in terms of digital access





