

IT Graduates and Entrepreneurship - Love or Hate?

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Entrepreneurship

- identifying and pursuing a business opportunity, in order to capitalize on it
- the French monarch Louis XIV - "the bourgeois and the craftsmen will become the artisans of wealth."
- "An entrepreneur is a person who, on the basis of contractual terms and conditions, is obliged to perform in favor of another person/organization, various works, in exchange for a previously established reward

Entrepreneurship - evolution

- entrepreneur = economic agent who adopts an active and innovative behavior, who deliberately accepts financial risks to develop new projects
- The recognition - XVIII century in France – ec. Richard Cantillona associated risk-taking in the economy with entrepreneurship.
- In England - the Industrial Revolution - entrepreneurs benefit from the first opportunities to play an increasingly visible role in transforming and exploiting resources
- Joseph Schumpeter (1934), : "In entrepreneurship there is an understanding that we make in relation to a certain type of behavior that includes: initiative, organization and reorganization of socio-economic mechanisms and acceptance of risk and failure ”.

Entrepreneurship - qualities

- Face failure
- Self-confidence and optimism
- Making visions
- High energy level
- Creativity and spirit of innovation
- Independence
- Teamwork
- Managerial skills
- Determination and perseverance + desire to win
- Feedback seeking
- Opportunity Orientation



Important factors influencing the entrepreneurial environment

- **Legislative-normative factors** - laws, acts, government ordinances, special provisions or other bills
- **Social factors** -suppliers, customers (possible and current), state officials, possible investors and business partners + employees of a company.
- **Financial factors** - the financial-banking institutions, the National Bank of Romania (BNR), the Bucharest Stock Exchange (BVB).
- **Technological factors** - the main object of activity of the company and the products
- **Education????**

IT

- IT or ICT = technology needed to process (procure, process, store, convert and transmit) information, in particular by using computers
- in 1958 - in Harvard Business Review, Leavitt and Whisler stated: "*New technology is not yet well established; we will call it "information technology"*"
- Information technology is a domain element of connection between classical electrotechnics and much newer informatics.

Computer Science

- the science of systematic processing of information, in particular processing using computers
- historically, computer science has developed as a science in *mathematics*, while the development of first computers has its origins in *electrotechnics and telecommunications*.

Computer Engineering

- a branch of engineering that integrates several fields of *computer science and electronic engineering* required to develop computer hardware and software

Business Informatics (Economic Informatics)

- **Business informatics (BI)** - combining economics, economics of digitization, business administration, information technology (IT) and concepts of computer science.
- **Business Information Systems** - how ICT can be deployed to improve business processes and enhance the organisation's value chain networks.

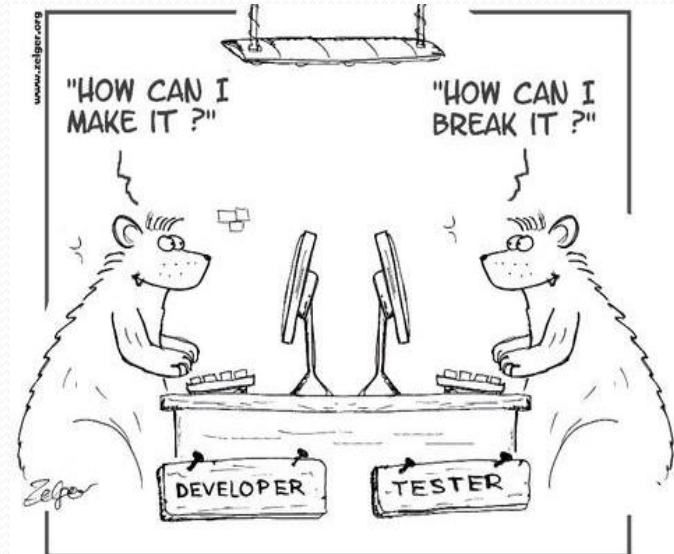
IT Entrepreneurship in Romania

- 17,000 active companies
- over 100,000 employees
- annual revenues of 4.8 billion euro
- In the period 2011-2014, the number of companies in the field of technology increased at a rate of 5% -7% annually, and again from 2015 the rate was 10% -11%
- Start-up Nation -> further growth of number of IT companies



IT Graduates Hiring - 1

- R&D and support in software corporations (Microsoft, Google, Continental, Motorola)
- Outsourcing (personnel leasing, not IT) (Hella, Netrom)
- The big IT Romanian companies that work with the state (Siveco)
- IT Romanian companies < 5% (Bitdefender, SyncroSoft)
- Start-up Nation....



IT Graduates Hiring - 2

- lack of real entrepreneurship in IT
- most of the software – exported
- high tech specialists - multinational companies and create software at request to be outsourced
- no use of creativity in designing new software products

Impediments

- lack of a serious entrepreneurial education and culture
- fear of taxes
- administrative barriers
- difficult access to financing
- lack of mentorship and know-how



Survey

- Computer science graduates - 0
- Computer Engineering – 1
- Business Informatics – 1
- Management 😊 - 1



Opinions

- *The Romanian IT has a great potential, but we live in a big bubble, and from here we can only come out by promoting and culturalizing all that means entrepreneurship - Teodor Blidăruș, founder of the Romanian technology company Softelligence and president of Romanian Software Association*
- High salaries - comfortable in a comfort zone that prevents us from evolving economically and as a society.
- The bubble - young people, between 25 and 40 years old, who have absolutely no motivation to change the world.

Successful romanian brands in IT

- **BitDefender** – cybersecurity, antiviruses
- **SyncroSoft** – Oxygen – multi-platform XML editor, XSLT/XQuery debugger and profiler
- **UiPath** - no 1 in Robotic Process Automation Software
- Smart Bill - invoice software for small businesses
- Vola - online touristic agency
- 123FormBuilder - intuitive drag-and-drop form builder -web forms and surveys for any webpage
- Typing DNA - typing biometrics – keystroke analysis
- Symphopay - point-of-sale payments platform for retailers who want to integrate all partner banks into a single payment terminal

Solutions

- Real entrepreneurial education
- Support and encouraging of initiative
- Development of business incubators in universities
- External: laws, taxes etc.



