

Assessment of entrepreneurial activity in innovative system:

TOWARDS MEASUREMENT MODELS AND INDICATORS

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Agenda

- Theoretical background
- Challenge
- Research questions
- Empirical design
- Initial results
- Conclusion
- Limitation & Future work

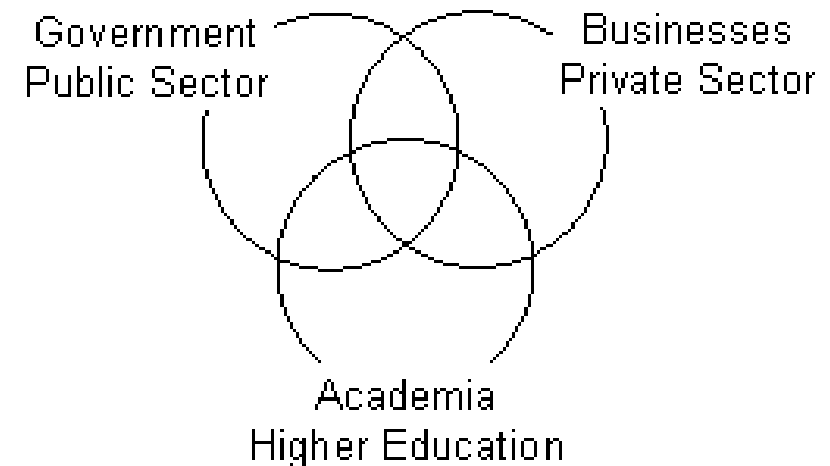
Theoretical background

- Innovation is based upon a Triple Helix of university-industry-government interaction. (Etzkowitz, 2003)
- Triple Helix is a dynamic model, which according to the figure, it alternates between a number of bilateral and trilateral coordination spheres. (Etzkowitz and Leydesdorff 2000; Leydesdorff 2012)

Apart of this...

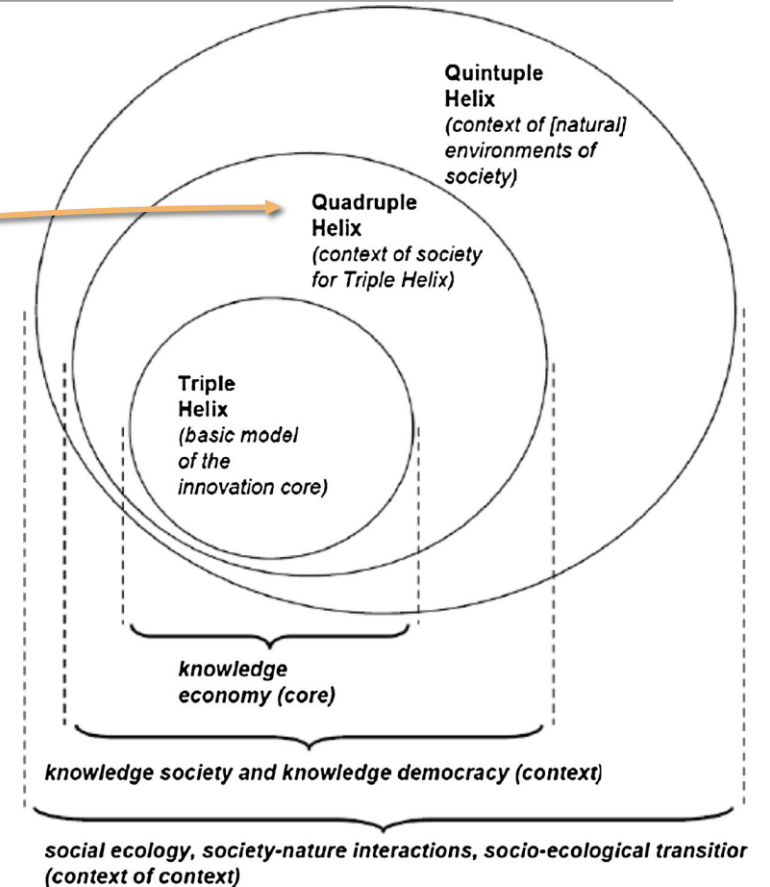
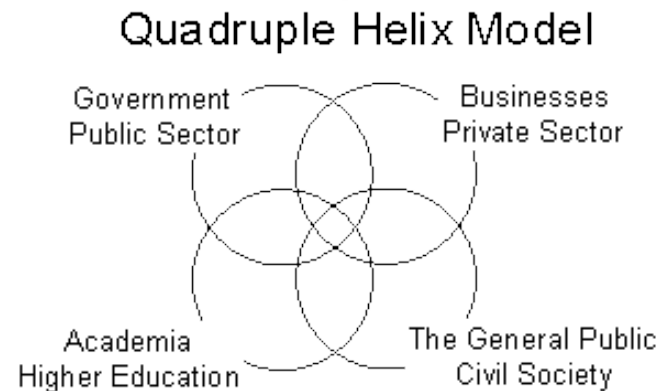
- Societal and cultural capacity has been considered as an important factor for innovation driven economies. (GII, 2014)
- Creative Class: key driving force for economic development of post-industrial cities. (Florida, 2002)

Triple Helix Model



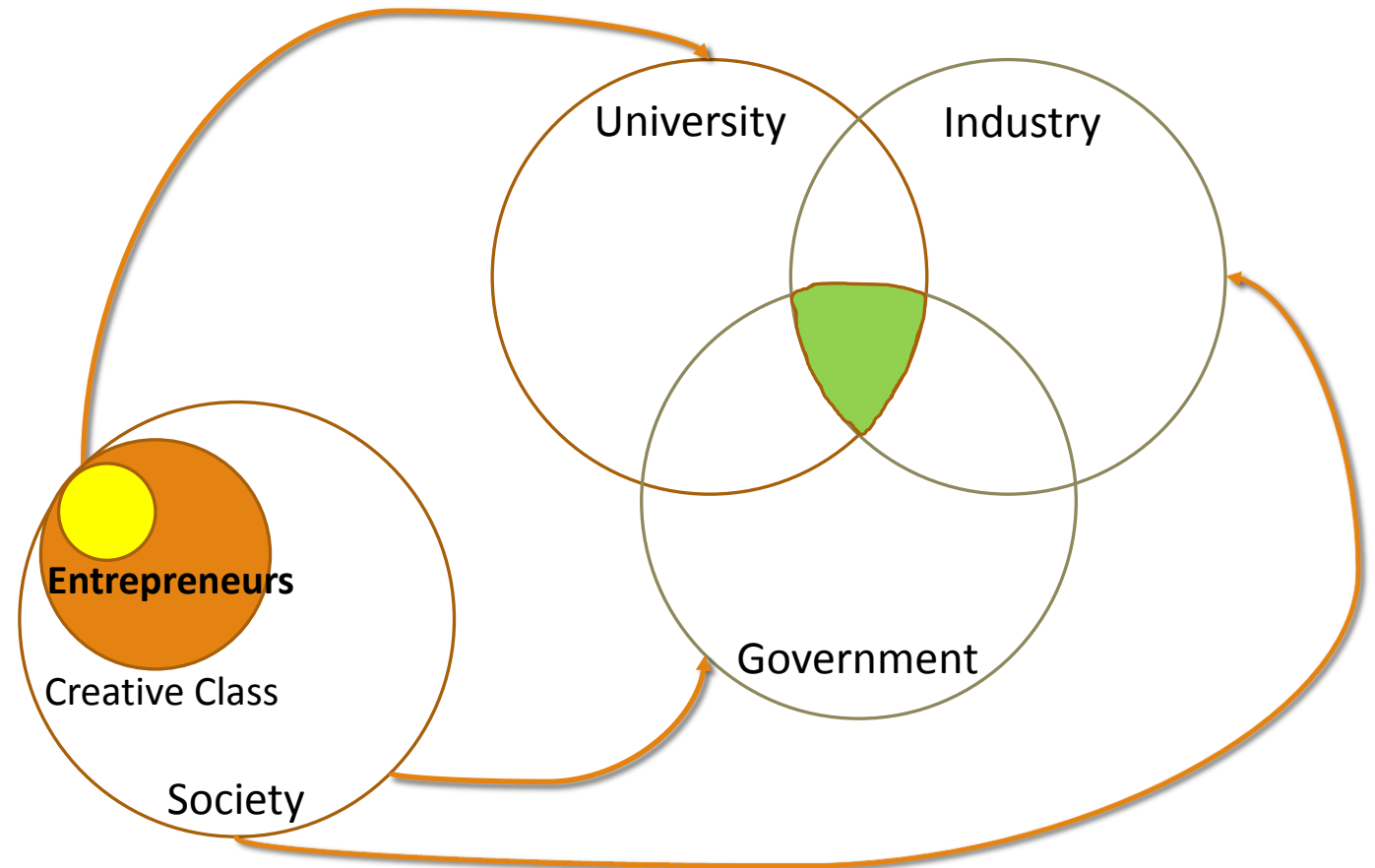
Theoretical background/2

- Moving towards Quadruple Helix (Carayannis and Campbell, 2009) the importance of integrating the perspective of media-based and cultural-based public has been recognized.



Challenge

- How to assess the linkages?
 - university-industry (Tijssen 2006)
- How society is coupled with the core knowledge economy?
- Our approach is to measure this linkage with in the most impactful act of society known as entrepreneurship
- Start-up scene can be a viable sample and a good representation of a national/regional activity regarding entrepreneurship.

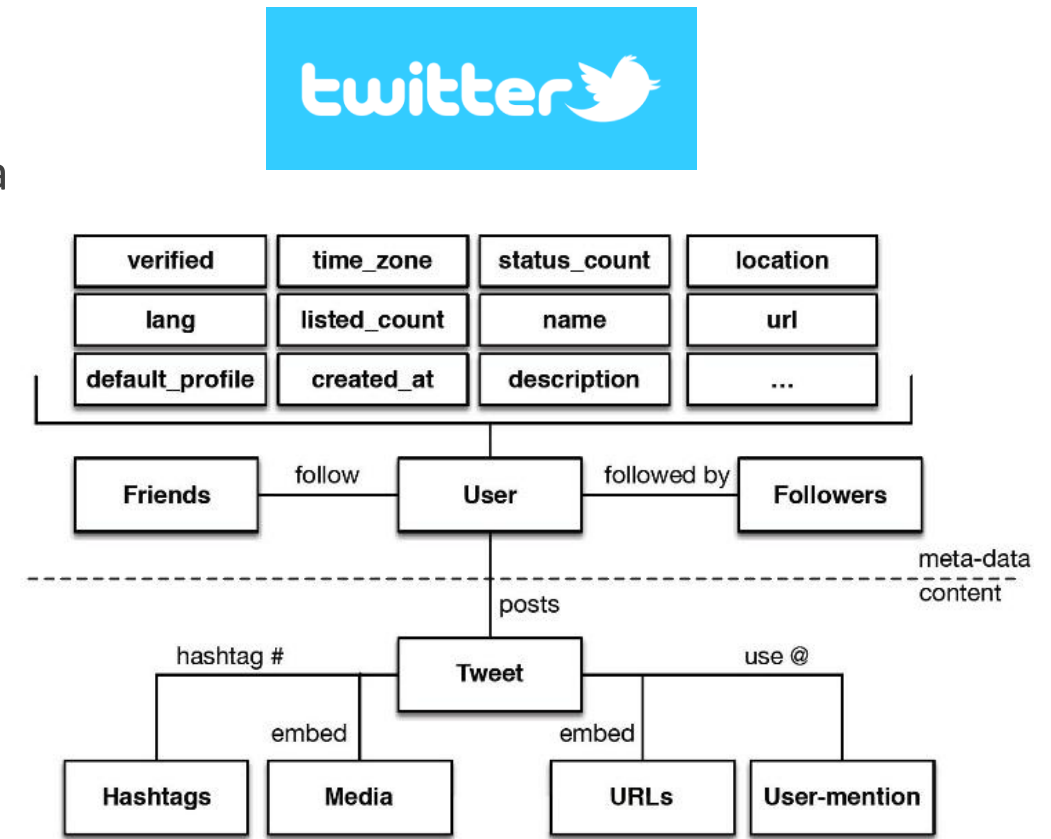


Research question

- ❑ How to capture entrepreneurial activity in society?
- ❑ Who is more centered in activities related to entrepreneurship?

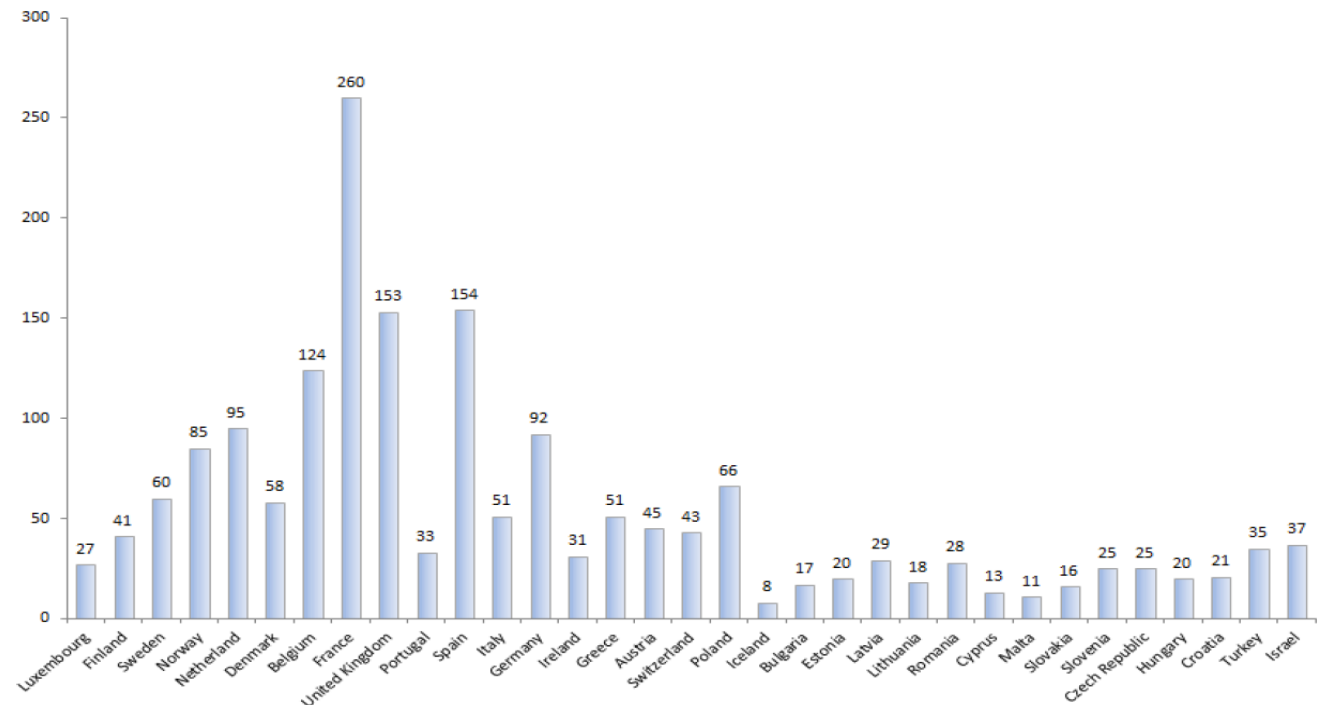
Towards novel data sources

- Using novel data sources for capture entrepreneurship activity
- With emergence of SNSs, this sources of data could be a good representative of the social activity.
- Twitter as SNS
 - Real time
 - Public
 - Connects both people and organizations
 - API (Application Programming Interface)
 - Popular with start-up and established technology oriented firms



Capturing entrepreneurial activity

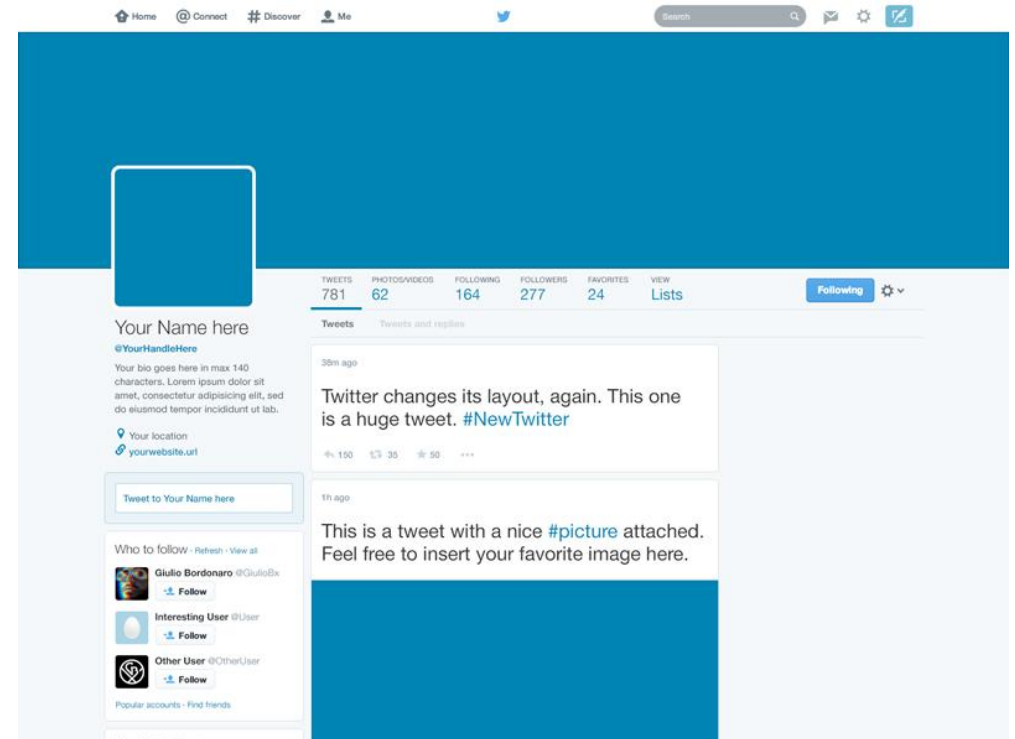
- Setting up a Twitterbot, scanning and retweeting every tweet based on:
 - Keywords
 - Stakeholders
 - community leaders
- Twitterbot becomes the innovation pulse of the local startup landscape
- The social network build around the hashtags is then studied and analyzed



Key ecosystem stakeholders in 33 countries (Mohout, 2015)

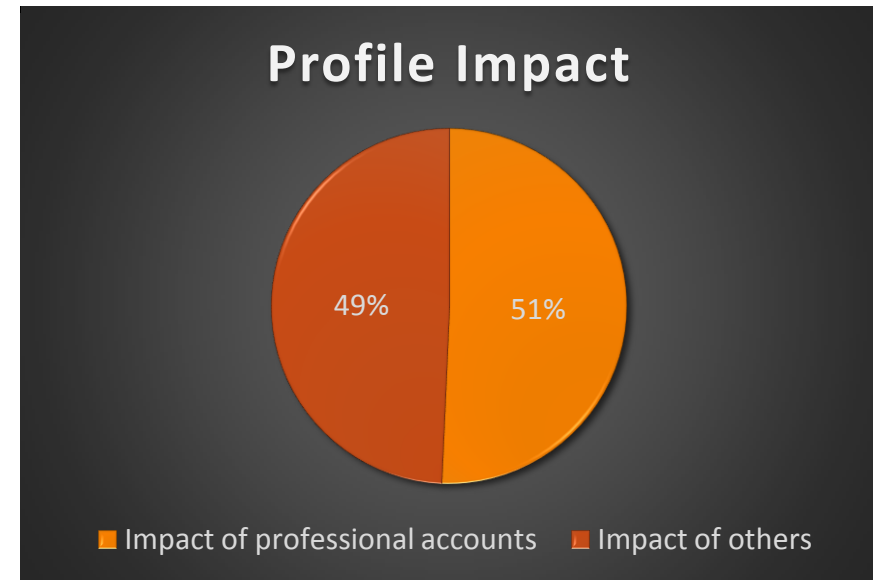
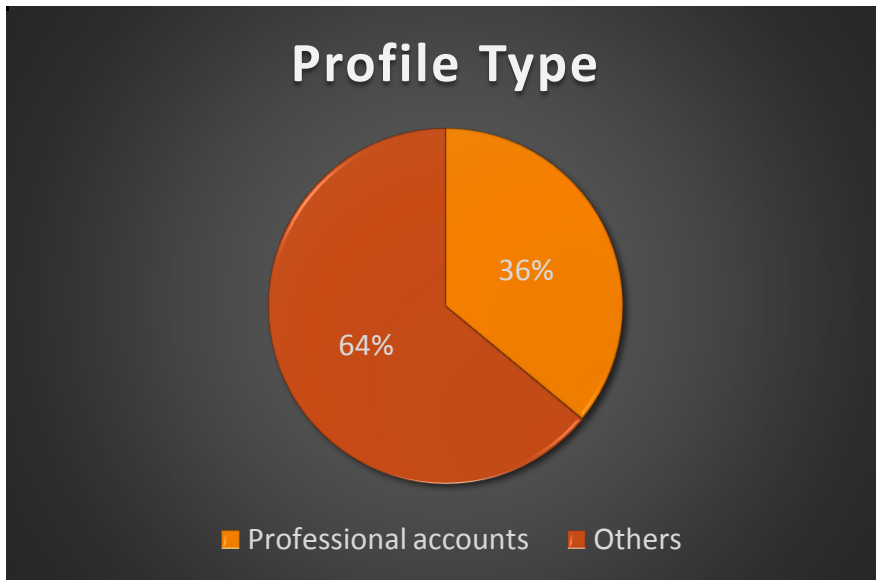
Detecting central activists in community

- 10 locations and their relative hashtag.
- Tweets collected for the respected hashtags (country) for 3 month period (Apr-Jun 2015)
- For each individual hashtag (country), collected tweets ordered and ranked base on the number of retweets they had.
- Top 10 tweets had been looked closely regarding their generators: type of the account (professional, corporate, Bot, Individual, agency) and number of followers.



Initial results

- Professional users are quite centric and impactful than other type of accounts.



Conclusion

- An empirical approach on assessing the society act of entrepreneurship within the knowledge economy
- Social media (twitter) shown an explanatory power in regards to the entrepreneurship activity
- Importance of professional individuals in the start-up scene.

Limitation & Future work

- Social media platform and their usage varies in different countries
- Need for control effects such as unemployment and population pyramid
- Automatic profile detection in social media (twitter)
- Using social network analysis terminologies to see how motivations are derived.