Outline of the paper

A vast literature on diversity in higher education focuses on issues of race, mobility, ethnicity and institution organisation (Badley, 2007; Banks, 1997; Bowen & Bok, 1998; Campbell, Denes, & Morrison, 2000; Chun & evans, 2008; David, 2007; Davis, 2007; File, 2006; Guri-Rosenblit, Sebkova, & Teichler, 2007; Hooks, 1994; Tatum, 1999; Thompson & Tyagi, 1993). Fewer studies exist focusing on diversity and human relations (Auhagen & Salisch, 1997 ; Baycan-Levent & Nijkam, 2010; Johnson & Johnson, 1999). In fact, the importance of diversity to new modes of creation of knowledge has been poorly investigated, but some works are pinpointing important steps (e.g.: Maroulis & Gomez, 2008; Cain, 2010; O'Donnell, Dansereau, & Hall, 2002; Vanasupa, McCormick, Stefanco, Herter, & McDonald, 2012). Among these new modes of knowledge creation, we can mention the contemporary networks which, unlike local communities, are not only centred on place-based affiliation, but more based on niche cultural affiliations and knowledge communities. These new ways of sharing culture and knowledge have broad implications on the relations between production and consumption and the traditional sources of authority for culture and knowledge. Standards are continuously being reshaped as networks are becoming the dominant cultural logic (Varnelis, 2008). "Today, network culture succeeds postmodernism. It does so in a more subtle way. No new 'ism' has emerged: that would lay claim to the familiar territory of manifestos, symposia, definite museum exhibits, and so on" (Varnelis, 2008, p. 149). As it happens in other spheres, universities are made of networked actors and, thus, the cultures that emerge are varied. In this networked society (King, forthcoming), the creation and production of knowledge and expertise rises the likelihood that current knowledge will be retained and multiplied in new knowledge and practices.

The more recent development of network theory represented an important contribution to deal with the issue of knowledge as it combined what we intuitively know with a growing body of network research suggesting that relationships within a system matter in enacting change, flows, diffusion strategies, implying both formal and informal networks of social relations that create nets of understandings, influence, and knowledge prior to, during and after any implementation of a change strategy (Daly, 2010). Moreover, little is known about the content and formation of these knowledge networks. In fact, there is still little empirical and conceptual work about these new knowledge practices and about how these knowledge networks are emerging and with what impacts. This paper, thus, presents a conceptualisation of alternative knowledge networks based on an empirical analysis of the personal and professional networks of academics at a Spanish university.

Research on personal networks is a subfield of egocentric network analysis, which, in turn, is a subset of social network analysis, the study of patterns of relationships between social actors. The difference between personal network analysis and other types of egocentric networks is that the boundaries of the network members are unrestrained (McCarty & Molina, forthcoming). There is conflicting evidence about when, why and how personal networks affect individual knowledge creation (e.g.: Phelps et al., 2012). In order to further explore under which conditions these alternative knowledge networks emerge and impact on knowledge diversity at universities, we use a mixed method design concentrating on the ego-networks of university researchers. After delineating the networks of collaboration and

influence, we discuss these networks in qualitative semi-structured interviews with the researchers (n=30). The analysis is focused on the scientific practices and other knowledge-related features of the academics as well as on their scientific network of relations. From the case analysed – departments of various faculties of a Spanish university – we detected the emergence of alternative knowledge networks and these are the ones that are the core of this analysis.

The concept of alternative knowledge networks allow us to consider the mechanisms and dynamics of inclusion and exclusion in the research agendas of academics. These dynamics present different types of justification that we will explore in this paper. The findings suggest that the alternative knowledge networks occur simultaneously and not necessarily in opposition to the regular collaboration and co-authorship networks of academics. By not restraining the approach to a dualistic one, it is possible to better understand the contradictions, peculiarities and differences that emanate from the multidimensionality of the knowledge networks of academics. These alternative knowledge networks entail processes that are in continuous negotiation, configuring discourses and practices of subversion and transformation of the dominant research agendas. This analysis also puts forward systemic connexions between, on one hand, the emergence of alternative knowledge networks and its impacts on diversity in higher education.

Relevant references

Ahola, S., Hoffman, D. (2012). *Higher education research in Finland: Emerging structures and contemporary issues.* University of Jyväskylä,.

Brennan, J., Shah, Tarla (2012). *Higher Education and Society in Changing Times: looking back and looking forward*. CHERI.

Crona, B. I., & Parker, J. N. (2011). Network Determinants of Knowledge Utilization. *Science Communication*, 33(4), 448-471.

Cross, R., Borgatti, S., & Parker, A. (2001). Beyond answers: dimensions of the advice network. *Social Networks*, 23, 215-235.

Csaba, Z. L., & Pál, J. (2010). How Negative Networks Are Forming and Changing in Time? Theoretical Overview and Empirical Analysis in Two High-school Classes. *Review of Sociology* 20(2), 69-95.

Cummings, W. K. (1994). From knowledge seeking to knowledge creation: The Japanese university's challenge. *Higher Education*, 27(4), 399-415.

Curşeu, P., Janssen, S., & Raab, J. (2012). Connecting the dots: social network structure, conflict, and group cognitive complexity. Higher Education, 63(5), 621-629.

Daly, A. J. (2010). *Social Network Theory and educational Change* Harvard Harvard University Press.

File, J. (2006). Diversity in Higher Education. *Reflecting on higher education policy across Europe : a CHEPS resource book*. Twente: CHEPS.

Lubbers, M. J., Molina, J. L., & McCarty, C. (2007). Personal Networks and Ethnic Identifications. *International Sociology, 22*(6), 721-741.

Maroulis, S., & Gomez, L. (2008). Does "Connectedness" Matter? Evidence From a Social Network Analysis Within a Small-School Reform. *Teachers College Record., 110*(9).

Phelps, C., Heidl, R., & Wadhwa, A. (2012). *Knowledge, Networks, and Knowledge Networks*. Journal of Management, 38(4), 1115-1166.

Polanyi, M. (1958). *Personal knowledge: towards a post-critical philosophy*. Chicago: University of Chicago Press.

Raj Kumar, P., & Jari, S. (2012). *The strength of strong ties in scientific collaboration networks*. EPL (Europhysics Letters), 97(1), 18007.

Ramasco, J. J. (2007). Social inertia and diversity in collaboration networks. *The European Physical Journal*, 143, 47–50.

Rawlings, C. M., & McFarland, D. A. (2011). Influence flows in the academy: Using affiliation networks to assess peer effects among researchers. *Social Science Research*, 40(3), 1001-1017.

Varnelis, K. (2008). *Networked Publics*. Cambridge: Cambridge University Press.

Wood, F. (2010). Occult innovations in higher education: corporate magic and the mysteries of managerialism. *Prometheus: Critical Studies in Innovation, 28*(3), 227 - 244.

Ziman, J. (1991, 1996). *Reliable knowledge - an exploration of the grounds for belief in science* Cambridge Cambridge University Press.