How Open Source Engineering Could Be Used To Recruit Top International Engineers

Literature Review / Part III

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Making People Illegal: What Globalization Means for Migration and Law


- During the last few years, the phenomenon of international migration has become a matter of concern, highlighting several critical issues pertinent to the relationship between the protection of migrants in an 'illegal' situation and the implementation of international human rights standards. This book constitutes a valuable contribution to the recent academic debate highlighting the positive influence of migration law to understanding globalisation, bringing together diverse areas of research. The author, arguing that 'migration law function[s] almost as a laboratory setting for testing globalization's hypotheses' (p. 2), addresses the sensitive subject of the interpretation of the concept of sovereignty, emphasising the existing gap between the principles agreed by governments to be implemented at the national level and the reality of individuals'
lives. Globalisation challenges the traditional notion of human rights by advancing an individual-centred...

**The Cost of Belonging: Citizenship Construction in the State of Qatar**


- Abstract: In Qatar, processes of constructing citizenship have been strongly state-driven over the past four decades. This article reviews the primary influences on Qatari citizenship laws, including historical and contemporary social contexts that have impacted the development of relevant legislation. The article argues that the existing financial privileges of Qatari citizenship as well as the presence of a dominant nonnational population have led to an ever more restrictive legal environment around access to citizenship.

**Immigrants, Taxes, and Welfare in the United States**


- Abstract: It has long been recognized that societies may benefit from the immigration of unattached young persons in the prime of life. Nevertheless, immigrants--typically young men and women who arrive without aged dependents and with a relatively small number of children already born--are not generally greeted with open arms in the United States and elsewhere. An investigation of the balance of transfers between immigrants and natives in the United States shows that, from the time of entry until about 12 years later, immigrants use substantially less in the way of public services; subsequently, use by immigrants becomes roughly equal to that by natives. On the contribution side after about three to five years immigrant families pay as much in taxes as do native families; thereafter they pay substantially more. The net balance of these two forces is positive in every year with respect to natives' income
- 10-15 years immigrant take in as much social services as natives
- Part of immigrants have no children, or no dependent elders, surplus for community

**Free Mobility within the Gulf Cooperation Council**


- Abstract: Stipulations within the formal protocols of the Gulf Cooperation Council (GCC) established free movement of nationals as an essential component of the region's movement towards full economic integration. This paper analyzes the protocols within
the broader construct that stresses human emancipation and freedom of mobility as fundamental human rights. Throughout the GCC, states face the peculiar dilemma of supporting full freedom of mobility for citizens while also severely limiting and curtailing the mobility of the dominant, non-national population. This paper questions how normative debates on the freedom of movement apply to the Gulf region and examines the policy and practice of strictly managing the movement of international migrants while at the same time freeing up movement for citizenry. This paper proposes that in the GCC, the regional political economy and the processes of regionalization and globalization have combined to tighten controls over mobility and migration.

- Nationals prefer a public jobs with high payment and shorter hours (P25)

**Budget of the United States Government**


**Population and Housing Unit Estimates**


**From brain drain to brain circulation: Transnational communities and regional upgrading in India and China**


- Abstract: By 2000, over one-third of Silicon Valley's high-skilled workers were foreign-born, and overwhelmingly from Asia. These U.S.-educated engineers are transforming developmental opportunities for formerly peripheral regions as they build professional and business connections to their home countries. In a process more akin to "brain circulation" than "brain drain," these engineers and entrepreneurs, aided by the lowered transaction costs associated with digitization, are transferring technical and institutional know-how between distant regional economies faster and more flexibly than most large corporations. This article examines how Chinese- and Indian-born engineers are accelerating the development of the information technology industries in their home countries--initially by tapping the low-cost skill in their home countries, and over time by contributing to highly localized processes of entrepreneurial experimentation and upgrading, while maintain close ties to the technology and markets in Silicon Valley. However, these successful models also raise several questions about the broader relevance of brain circulation outside of several key countries, and regions of those countries, within the global South.
• Brain drain post war to World third countries (P2)
• Cultural and linguistic barriers for firms to expand (P5)
• Returning entrepreneurs created role models for subsequent firms (P6)
• Returning entrepreneurs advices regional government to reform infrastructures (P8)
• Silicon Valley seek talent back in firms from source countries (P21)
• Political frictions stop start-up firms (P22)

**Immigrants in a Booming Economy: Analysing Their Earnings and Welfare Dependence**


Ireland's exceptional economic growth in recent years has led to an influx of immigrants. Given the favourable economic climate into which these immigrants are arriving, it is interesting to ask how their earnings and welfare dependence compare with the native population. Using data from a nationally representative sample drawn in 2004 immigrants are found to earn 18 per cent less than natives, controlling for education and years of work experience. However, this single figure hides differences across immigrants from English-speaking and non-English-speaking countries. On average, immigrants are half as likely to have been in receipt of social welfare payments in the previous 12 months relative to natives.

**Myths about Immigrants**


Illegal immigrant is a net cost, but actions are not successful

**Immigrants Contribute Greatly to U.S. Economy, Despite Administration's "Public Charge" Rule Rationale**


**The Economic Benefits from Immigration**

Dramatically Bringing down the Cost of Education with OER: How Open Education Resources Unlock the Door to Free Learning.

Center for American Progress


- Abstract: The nation is in the midst of a revolution in education. For the first time in human history, tools to enable everyone to attain all the education they desire are available. And best of all this education is available at almost no cost. The key to this sea of change in learning is open education resources, or OER. OER are educational materials produced by one party that are licensed to be used free of charge by others. OER come in many forms--from curriculum to homework assignment to textbooks. And OER exist for all levels of education, from kindergarten through college. OER are already being used by learners for self study, by teachers to enhance classroom learning, and by education providers to bring down the cost of instruction. Clearly, open education resources hold some of the answers to maintaining the quality of learning material while significantly reducing the cost of education. With this brief the authors seek to provide a substantive understanding of OER and at the same time inform the emerging public debate over their use in public education. Finally the authors provide key suggestions for how policymakers can best structure the use of OER.
- Taxpayers paid for the grants towards faculty already.

Wealth inequality is a barrier to education and social mobility

Breno et al. (2017). Wealth inequality is a barrier to education and social mobility | VOCEdplus, the international tertiary education and research database. https://www.voced.edu.au/content/ngv:78316

- Abstract: The US wealth gap is fueling an education and upward mobility gap. Wealth, along with income, can buy educational achievement through more books, tutors, and private schools. But wealth also offers a level of security that income (and financial aid, like Pell grants) can’t. Young people in families with more wealth can focus on the academic challenges of higher education instead of the financial ones. Because education is a key way to escape poverty and gain economic independence, increasing access to wealth can mean increasing access to opportunity.

Open-Source Syringe Pump Library


- **Abstract**: This article explores a new open-source method for developing and manufacturing high-quality scientific equipment suitable for use in virtually any laboratory. A syringe pump was designed using freely available open-source computer aided design (CAD) software and manufactured using an open-source RepRap 3-D printer and readily available parts. The design, bill of materials and assembly instructions are globally available to anyone wishing to use them. Details are provided covering the use of the CAD software and the RepRap 3-D printer. The use of an open-source Raspberry Pi computer as a wireless control device is also illustrated. Performance of the syringe pump was assessed and the methods used for assessment are detailed. The cost of the entire system, including the controller and web-based control interface, is on the order of 5% or less than one would expect to pay for a commercial syringe pump having similar performance. The design should suit the needs of a given research activity requiring a syringe pump including carefully controlled dosing of reagents, pharmaceuticals, and delivery of viscous 3-D printer media among other applications.

Mobility of highly qualified manpower: A feasibility study on the possibilities to construct internationally comparable indicators


Paid vs. Volunteer Work in Open Source


- **Abstract**: Many open source projects have long become commercial. This paper shows just how much of open source software development is paid work and how much has remained volunteer work. Using a conservative approach, we find that about 50% of all
open source software development has been paid work for many years now and that many small projects are fully paid for by companies. However, we also find that any non-trivial project balances the amount of paid developer with volunteer work, and we suggest that the ratio of volunteer to paid work can serve as an indicator for the health of open source projects and aid the management of the respective communities.


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Adoption, Improvement, and Disruption: Predicting the Impact of Open Source Applications in Enterprise Software Markets


- Abstract: This article develops a model of open source disruption in enterprise software markets. It addresses the question: Is free and open source software (FOSS) likely to disrupt markets for commercial enterprise software? The conventional wisdom is that open source provision works best for low-level system-oriented technologies, while
large, complex enterprise business applications are best served by commercial software vendors. The authors challenge the conventional wisdom by developing a two-stage model of open source disruption in enterprise software markets that emphasizes a virtuous cycle of adoption and lead-user improvement of the software. The two stages are an initial incubation stage (the I-Stage) and a subsequent snowball stage (the S-Stage). Case studies of several FOSS projects demonstrate the model's ex post predictive value. The authors then apply the model to SugarCRM, an emerging open source CRM application, to make ex ante predictions regarding its potential to disrupt commercial CRM incumbents.

- Forced some commercial product to go free (P2)
- Firms participate in FOSS to sell related products and subsidize its FOSS base (P9)
- Users prefer the flexibility and possibility to innovate the product (P10)
- Users of business software are mostly only knowledgeable on how to configure the software to support their needs, while users of FOSS are at the same time fluent in programming (P10)
- Benefits in participating in FOSS for firms exceeds the loss they may face in keeping the product closed-source (P11)


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