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MATERI

“Offshoring as an Ethical Issue”

10.1. Pengertian dan Istilah

10.1.1 Overview dan Kilas Balik

Outsourcing mengacu pada kontrak keluar dari seluruh fungsi bisnis, proyek, atau kegiatan tertentu ke penyedia eksternal. Istilah ini memasuki leksikon bisnis pada 1980-an. Pada paruh kedua abad ke-20, karena perusahaan cenderung tumbuh lebih besar dan keterampilan diperlukan untuk menjadi lebih banyak dan lebih khusus, perusahaan menemukan bahwa penyedia eksternal sering dapat menyelesaikan pekerjaan lebih cepat dan lebih efisien karena keterampilan yang mereka miliki. Hal ini menyebabkan lebih banyak mempekerjakan penyedia eksternal untuk mengelola fungsi bisnis dan proyek di mana keterampilan khusus diperlukan.

Menjelang akhir abad kedua puluh, dengan perbaikan dalam teknologi pengiriman dan infrastruktur telekomunikasi, menjadi semakin efisien untuk menyelesaikan pekerjaan di lokasi geografis lainnya, terutama di negara-negara berkembang di mana upah lebih rendah. Praktek ini kemudian dikenal sebagai offshoring. Namun, tidak semua pekerjaan lepas pantai dialihdayakan. Captive offshore mengacu pada perusahaan multinasional (MNC) mendirikan anak perusahaan di beberapa negara dan mendapatkan berbagai jenis pekerjaan yang dilakukan di berbagai negara. Faktor-faktor yang dipertimbangkan MNC ketika offshoring termasuk biaya faktor produksi (upah, bahan mentah, biaya transportasi, utilitas seperti listrik), pajak (banyak negara menawarkan subsidi untuk menarik MNC untuk mendirikan toko) dan keterampilan yang tersedia di antara angkatan kerja. Ada beberapa alasan untuk perusahaan menggunakan konsep “offshore” dan “outsourcing”.

(a) Untuk kasus “outsourcing”

Keuntungan biaya: Biaya dapat dibilang sebagai motivasi utama di balik outsourcing. Seringkali perusahaan menemukan bahwa kontrak kerja ke pihak ke-3 lebih murah.

Fokus pada kompetensi inti: Ada banyak fungsi bisnis di sebuah perusahaan. Misalnya, sumber daya manusia, teknologi informasi, manufaktur, penjualan, pemasaran, penggajian, akuntansi, keuangan, keamanan, transportasi dan logistik antara lain. Sebagian besar ini bukan "inti" untuk perusahaan. Kegiatan "inti" adalah kegiatan yang menawarkan keunggulan kompetitif bagi perusahaan dibandingkan pesaingnya. Ini adalah kegiatan yang perusahaan lakukan lebih baik daripada kompetisi, yang merupakan alasan utama pelanggan melakukan bisnis dengan perusahaan. Memiliki untuk menangani fungsi-fungsi non-inti adalah pengalih perhatian, sehingga banyak perusahaan mengalihdayakannya.

Kualitas dan Kemampuan: Seringkali perusahaan tidak memiliki keahlian internal untuk kegiatan tertentu. Dalam kasus ini, lebih efisien untuk melakukan outsourcing, dan produk dan layanan yang dihasilkan cenderung berkualitas lebih tinggi bila disediakan oleh vendor outsourcing.

Fleksibilitas tenaga kerja: Outsourcing memungkinkan perusahaan untuk naik turun dengan cepat sesuai kebutuhan. Sebagai contoh, perusahaan mungkin memerlukan

sejumlah besar ahli pemrograman perangkat lunak selama 6-8 bulan untuk mengembangkan aplikasi. Tidak mungkin mempekerjakan orang hanya selama 6 bulan. Outsourcing, bagaimanapun, dapat memberikan fleksibilitas sehingga perusahaan tidak perlu khawatir tentang perekrutan dan pemecatan.

(b) Untuk kasus “offshore”

Penghematan biaya: Perusahaan biasanya memproduksi atau jasa lepas pantai ke negara berkembang di mana upah rendah, sehingga menghasilkan penghematan biaya. Penghematan ini diteruskan kepada pelanggan, pemegang saham dan manajer dari perusahaan-perusahaan ini.

Keterampilan: Keunggulan kompetitif negara sering berarti bahwa beberapa negara atau wilayah mengembangkan ekosistem yang lebih baik untuk jenis industri tertentu. Ini berarti ada ketersediaan sumber daya manusia terampil yang lebih baik di wilayah tersebut untuk jenis tugas tertentu. Sebagai contoh, India dan Filipina memiliki banyak sekali remaja berbahasa Inggris yang berpendidikan tinggi; serta infrastruktur pelatihan yang matang; yang membuatnya ideal untuk proses bisnis outsourcing. Oleh karena itu, banyak perusahaan memilih untuk menjalankan fungsi bisnis tertentu di luar negeri (misalnya pusat panggilan untuk dukungan pelanggan) ke lokasi-lokasi ini. Ini bisa menjadi tawanan atau outsourcing.

10.1.2 Istilah

Offshoring	;	praktik merelokasi proses bisnis seperti produksi / manufaktur ke lokasi di luar negeri dengan biaya lebih rendahi
Outsourcing	;	penyerahan aktivitas perusahaan pada pihak ketiga dengan tujuan untuk mendapatkan kinerja pekerjaan yang profesional. Oleh karena itu, pemilihan pemberi jasa merupakan hal yang sangat vital. Diperlukan pemberi jasa yang menspesialisasikan dirinya pada jenis pekerjaan yang akan diserahkan.
Insourcing	;	perusahaan mengambil atau menerima pekerjaan dari perusahaan lain dengan berbagai motivasi.
Contracting	;	bentuk penyerahan aktivitas perusahaan ada pihak ketiga yang paling sederhana dan merupakan bentuk yang paling lama. Biasanya menyangkut kegiatan yang sederhana atau jenis layanan tingkat rendah.
Co-sourcing	;	jenis hubungan pekerjaan dan aktivitas dimana hubungan antar perusahaan lebih erat dari sekedar hubungan outsourcing biasa.

Benefit-based-relatinship i	;	hubungan outsourcing dimana sejak semula kedua belah pihak mengadakan investasi bersama, dengan pembagian pekerjaan tertentu. Maka kedua belah pihak akan saling mendukung dan saling ketergantungan antar satu sama lain.

10.2 *Offshoring* (alih keluar)

Alih keluar (bahasa Inggris: *Offshoring*) adalah pepindahan proses bisnis dari sebuah negara ke negara lain—biasanya proses operasi seperti manufaktur atau proses penopang seperti akuntansi. Istilah ini umumnya mengacu pada bisnis perusahaan swasta, namun pemerintah kadang-kadang juga melakukan alih keluar.[1] Alih keluar belakangan ini dikaitkan dengan alih daya jasa teknis dan administratif yang membantu operasi domestik dan global dari luar negara markas ("alih daya keluar") dengan model pengiriman interal (penarikan) atau eksternal (alih daya).[2]

Istilah ini digunakan dalam beberapa kesempatan yang berbeda namun sangat berhubungan satu sama lain. Istilah ini secara luas berarti penggantian jasa dari dalam perusahaan dengan jasa dari sumber asing manapun. Dalam beberapa kasus, hanya jasa impor dari perusahaan anak atau pemasok terkait yang termasuk dalam lingkup istilah ini. Barang menengah seperti komputer yang setengah selesai tidak masuk lingkup istilah ini.[3]

Alih keluar dapat dipandang dalam konteks produksi atau jasa. Setelah bergabung dengan Organisasi Perdagangan Dunia (WTO) tahun 2001, Republik Rakyat Tiongkok menjadi negara tujuan alih keluar produksi utama. Bidang industri lain yang dialihkan keluar adalah industri perangkat lunak sebagai bagian dari pengembangan perangkat lunak global dan perkembangan sistem informasi global. Karena kemajuan telekomunikasi meningkatkan kesempatan perdagangan jasa, India menjadi negara terbesar yang menjadi tujuan alih keluar telekomunikasi.[butuh rujukan] Beberapa negara juga mulai dijadikan tujuan alih keluar.

Alasan ekonomi alih keluar adalah untuk mengurangi biaya (disebut arbitrase kerja) dan meningkatkan keuntungan perusahaan. Lapangan pekerjaan bertambah di negara tujuan yang menyediakan barang atau jasa (umumnya negara berbiaya kerja rendah), namun berkurang di negara berbiaya kerja tinggi. Peningkatan biaya jaring pengaman pengangguran ditangani oleh pemerintah (pembayar pajak) di negara berbiaya tinggi atau perusahaan yang melakukan alih keluar. Eropa mengalami lebih sedikit alih keluar dibandingkan Amerika Serikat karena kebijakan yang membebankan lebih banyak biaya kepada perusahaan dan hambatan budaya.[4]

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[1] "The Offshoring of American Government", Cornell Law Review, Nov. 2008, available: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1143044 di-akses November 2018

[2] Stephan Manning, Silvia Massini, Arie Lewin (October 20, 2008). "SSRN-A Dynamic Perspective on Next-Generation Offshoring: The Global Sourcing of Science and Engineering Talent". Academy of Management Perspectives. Social Science Electronic Publishing. 22 (3): 35–54. doi:10.5465/amp.2008.34587994. Diakses tanggal 8 April 2014.

[3] See "Appendix II: Definitions of Offshoring" in General Accounting Office: "International Trade: Current Government Data Provide Limited Insight into Offshoring of Services", September 2004. Imported intermediate goods are included in offshoring in "Swenson, D: "International Outsourcing", in The New Palgrave Dictionary of Economics, 2008.

[4] "Staying put. European jobs are not coming back because few of them went in the first place". The Economist. January 2013. Diakses tanggal 8 April 2014.

10.3 “Outsourcing”

10.3.1 Pendapat

Menurut Yasar (2012: 20) ialah penyerahan kegiatan perusahaan baik sebagian maupun secara keseluruhan kepada pihak lain yang tertuang dalam kontrak perjanjian. Penyerahan kegiatan ini meliputi bagian produksi beserta tenaga kerjanya, fasilitas, peralatan, teknologi dan aset lain serta pengambilan keputusan dalam kegiatan perusahaan.

Menurut David outsourcing (2011: 193) adalah sebuah kegiatan ketika perusahaan memutuskan untuk menyerahkan sebagian kekuasaanya ke perusahaan lain yang melakukan tugas-tugas fungsional perusahaan utama, seperti tenaga kerja, sistem informasi, pembagian gaji, akuntansi, layanan kosumen dan bahkan pemasaran.

Menurut Greaver dalam Sunyoto (2013: 260) outsourcing ialah sebuah tindakan dengan mengalihkan sebagian aktivitas internal persusahaan yang terjadi secara berulang kali dan hak pengambilan keputusan kepada penyedia luar, sesuai kesepakatan kontrak di awal.

10.3.2 Dimensi “Outsourcing”

Dimensi outsourcing menurut Sudarso dan Anshori et al (2011: 106) ialah:

(a) Teknik: Pengetahuan dan kemampuan yang dimiliki untuk menyelesaikan tugas.

(b) Kehati-hatian: Sikap bertanggung jawab, tekun dan disiplin yang dimiliki untuk menyelesaikan tugas.

(c) Keyakinan: Suatu bentuk nilai tambah, rasa bangga dan rasa membela terhadap pekerjaan yang ditekuni.

(d) Harapan: Bahwa pengharapan merupakan kekuatan keyakinan pada suatu perlakuan yang diikuti dengan hasil khusus. Hal ini menggambarkan bahwa keputusan pegawai yang memungkinkan mencapai suatu hasil dapat menuntun hasil lainnya.

(e) Kuantitas: Jumlah hasil kerja yang dapat dikerjakan dalam kurun waktu tertentu.

10.3.3 Kelebihan dan Kekurangan Outsourcing

Outsourcing atau alih daya dapat diartikan sebagai penyerahan sebagian pelaksanaan pekerjaan yang sifatnya non-core atau penunjang oleh suatu perusahaan kepada perusahaan lain melalui perjanjian pemborongan pekerjaan

atau penyediaan jasa pekerja/buruh. Karena perusahaan lain dapat mengerjakannya dengan lebih murah, lebih cepat, lebih baik dan yang lebih utama lagi adalah karena kita punya pekerjaan lain yang sifatnya core yang lebih penting.

Keuntungan dari *outsourcing* :

(a) Fokus pada kompetensi utama, Perusahaan dapat fokus pada core-business. Hal ini dapat dilakukan dengan memperbaharui strategi dan merestrukturisasi sumber daya (SDM dan keuangan) yang ada.

(b) Penghematan dan Pengendalian biaya operasional, Salah satu alasan utama melakukan outsourcing adalah peluang untuk mengurangi dan mengontrol biaya operasional. Perusahaan yang mengelola SDM-nya sendiri akan memiliki struktur pembiayaan yang lebih besar daripada perusahaan yang menyerahkan pengelolaan SDM-nya kepada vendor outsourcing. Hal ini terjadi karena vendor outsourcing bermain dengan “economics of scale” (ekonomi skala besar) dalam mengelola SDM.

(c) Memanfaatkan kompetensi vendor outsourcing, Karena core-business-nya dibidang jasa penyediaan dan pengelolaan SDM, vendor outsourcing memiliki sumber daya dan kemampuan yang lebih baik dibidang ini dibandingkan dengan perusahaan. Kemampuan ini didapat melalui pengalaman mereka dalam menyediakan dan mengelola SDM untuk berbagai perusahaan. Bila tidak ditangani dengan baik, pengelolaan SDM dapat menimbulkan masalah dan kerugian yang cukup besar bagi perusahaan, bahkan dalam beberapa kasus mengancam eksistensi perusahaan.

(d) Perusahan dapat merespon pasar dengan cepat, Jika dilakukan dengan baik, outsourcing dapat membuat perusahaan menjadi lebih ramping dan cepat dalam merespon kebutuhan pasar. Kecepatan merespon pasar ini menjadi competitive advantage (keunggulan kompetitif) perusahaan dibandingkan kompetitor. Setelah melakukan outsourcing, beberapa perusahaan bahkan dapat mengurangi jumlah karyawan mereka secara signifikan karena banyak dari pekerjaan rutin mereka menjadi tidak relevan lagi.

(e) Mengurangi Resiko, perusahaan mampu mempekerjakan lebih sedikit karyawan, dan dipilih yang intinya saja. Hal ini menjadi salah satu upaya perusahaan untuk mengurangi resiko terhadap ketidakpastian bisnis di masa mendatang. Jika situasi bisnis sedang bagus dan dibutuhkan lebih banyak karyawan, maka kebutuhan ini tetap dapat dipenuhi melalui outsourcing. Sedangkan jika situasi bisnis sedang memburuk dan harus mengurangi jumlah karyawan, perusahaan tinggal mengurangi jumlah karyawan outsourcingnya saja, sehingga beban bulanan dan biaya pemutusan karyawan dapat dikurangi.

(f) Meningkatkan efisiensi dan perbaikan pada pekerjaan-pekerjaan yang sifatnya non-core, Umumnya mereka menyadari bahwa merekrut dan mengkontrak karyawan, menghitung dan membayar gaji, lembur dan tunjangan-tunjangan, memberikan pelatihan, administrasi umum serta memastikan semua proses berjalan sesuai dengan peraturan perundangan adalah pekerjaan yang rumit, banyak membuang waktu, pikiran dan dana

yang cukup besar. Mengalihkan pekerjaan-pekerjaan ini kepada vendor outsourcing yang lebih kompeten dengan memberikan sejumlah fee sebagai imbalan jasa terbukti lebih efisien dan lebih murah daripada mengerjakannya sendiri.

Kekurangannya dari *outsourcing* :

(a) Kehilangan kontrol manajerial, Kontrol manajerial akan menjadi milik perusahaan lain karena perusahan outsourcing tidak akan mendorong perusahaan melainkan didorong untuk membuat keuntungan dari layanan yang mereka sediakan.

(b) Adanya biaya tersembunyi, Setiap hal yang tidak tercamtum dalam kontrak akan menjadi dasar perusahaan untuk membayar biaya tambahan

(c) Ancaman keamanan dan kerahasian, Perusahaan outsourcing dapat menerima informasi tentang catatan gaji, medis dan rahasia lainnya.

(d) Kualitas, Kontrak akan mengalami spesifikasi dan akan ada biaya tambahan yang akan dikeluarkan oleh perusahaan kepada perusahaan outsourcing.

(e) Terkait kesejahteraan keuangan perusahaan lain, Perusahaan outsourcing akan bangkrut dan memegang kangtong

(f) Publisitas buruk

10.3.4 Dasar Hukum Outsourcing

Dasar hukum outsourcing adalah Undang-Undang No.13 Tahun 2003 Tentang Ketenagakerjaan

> *Pasal 64*
>
> *Perusahaan dapat menyerahkan sebagian pelaksanaan pekerjaan kepada perusahaan lainnya melalui perjanjian pemborongan pekerjaan atau penyediaan jasa Pekerja/Buruh yang dibuat secara tertulis.*

Berdasarkan ketentuan pasal di atas, outsourcing dibagi menjadi dua jenis:

(a) Pemborongan pekerjaan

Yaitu pengalihan suatu pekerjaan kepada vendor outsourcing, dimana vendor bertanggung jawab sepenuhnya terhadap pekerjaan yang dialihkan beserta hal-hal yang bersifat teknis (pengaturan oerasional) maupun hal-hal yang bersifat non-teknis (administrasi kepegawaian). Pekerjaan yang dialihkan adalah pekerjaan yang bisa

diukur volumenya, dan fee yang dikenakan oleh vendor adalah rupiah per satuan kerja (Rp/m2, Rp/kg, dsb.). Contoh: pemborongan pekerjaan cleaning service, jasa pembasmian hama, jasa katering, dsb.

(b) Penyediaan jasa Pekerja/Buruh

Yaitu pengalihan suatu posisi kepada vendor outsourcing, dimana vendor menempatkan karyawannya untuk mengisi posisi tersebut. Vendor hanya bertanggung jawab terhadap manajemen karyawan tersebut serta hal-hal yang bersifat non-teknis lainnya, sedangkan hal-hal teknis menjadi tanggung jawab perusahaan selaku pengguna dari karyawan vendor.

10.4 "Outsourcing vs Offshoring"

Comparison chart

Edit

	Offshoring	Outsourcing
Definition	Offshoring means getting work done in a different country.	Outsourcing refers to contracting work out to an external organization.
Risks and criticism	Offshoring is often criticized for transferring jobs to other countries. Other risks include geopolitical risk, language differences and poor communication etc.	Risks of outsourcing include misaligned interests of clients and vendors, increased reliance on third parties, lack of in-house knowledge of critical (though not necessarily core) business operations etc.
Benefits	Benefits of offshoring are usually lower costs, better availability of skilled people, and getting work done faster through a global talent pool.	Usually companies outsource to take advantage of specialized skills, cost efficiencies and labor flexibility.

Gambar 10.1 "Comparison chart"

(https://www.diffen.com/difference/Offshoring_vs_Outsourcing#Overview_and_History, diakses November 2018)

10.5 Review beberapa jurnal yang berkaitan dengan pokok bahasan online 8

(a) **"VIEWPOINT: Offshoring and the Local Ethics of Engineering",** https://www.tbp.org/pubs/Features/Sp06Cuello.pdf

(b) **"Offshoring as an Ethical Issue",** http://www.irma-international.org/viewtitle/7048/

(c) **"On Justifying Outsourcing and Offshoring",** http://www.aijcrnet.com/journals/Vol_2_No_4_April_2012/7.pdf

10.6 DAFTAR PUSTAKA

George W. Reynolds, (2012), Ethics in Information Technology, Fourth Edition Course Technology, Cengage Learning ISBN-13: 978-1-111-53412-7

George W. Reynolds, (2010), Ethics in Information Technology, Third Edition Course Technology, Cengage Learning ISBN-13: 978-0-538-74622-9

Robert A. Schultz, (2006), Contemporary issues in ethics and information technology, IRM Press, ISBN 1-59140-781-8

Daniel J. Solove, (2004), The Digital Person: Technology and Privacy in the Information Age, New York University Press, ISBN : 0-814-798-462

Stephen Northcutt, (2004), IT Ethics Handbook : Right and Wrong for IT Professionals.

Undang-Undang Republik Indonesia Nomor 13 Tahun 2003 Tentang Ketenagakerjaan

10.7 Lampiran

VIEWPOINT: Offshoring and the Local Ethics of Engineering

by Dr. Joel L. Cuello, Pennsylvania Beta '89

FOR ENGINEERS, THE RISE OF a truly global high-tech economy has brought an unexpected twist: the emergence of a global labor force in engineering, science, and other fields requiring advanced degrees. Just as a global market has catalyzed the mass export of products and technologies from highly-developed countries to developing nations, globalization has also catalyzed the export of engineering jobs.

While the principles of free trade and the arguments for protectionism are most commonly deployed by proponents and opponents of offshore outsourcing, respectively, it is possible—indeed expedient—for engineers to view and examine such *offshoring* of jobs along ethical lines. This essay suggests a novel framework of ethical responsibilities, opening important lines of understanding that could prove instrumental in crafting desirable solutions for individuals and companies alike.

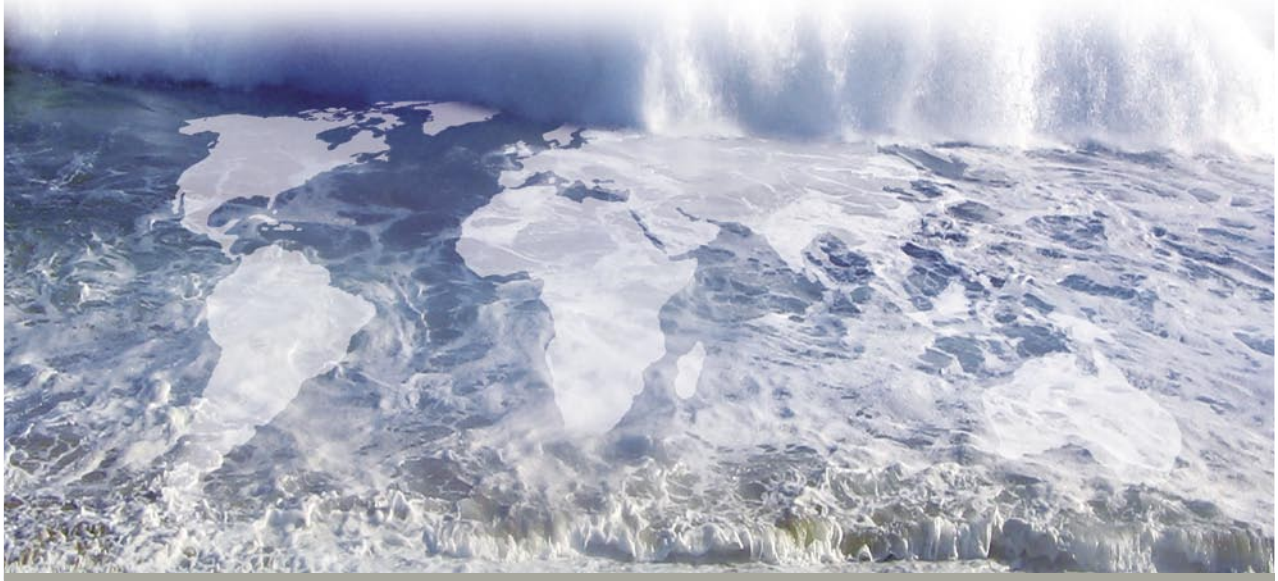
OFFSHORING AND U.S. ENGINEERING

Quite simply, offshoring to India and other low-wage countries has left American engineers dazed, confused, and vexed. Indeed, for U.S. corporations (including Dell, General Electric, IBM, and Texas Instruments), it is now becoming inconceivable to think of a global economy without the offshoring of jobs as well as markets.

Cost reduction is the obvious and preeminent reason. An experienced software programmer in the United States earning $75,000 a year, for instance, now can be replaced by an Indian programmer who earns approximately $15,000 a year.[1] Also, tapping pools of top-notch, well-educated technology workers in low-wage countries has proven to be a windfall for small- and medium-sized U.S. companies, enabling them to compete with big corporations for improved quality and differentiation of products and services in addition to expanded markets.[2]

Splitting advanced projects into pieces is another boon of offshoring, with experts in different countries handling only a piece of the project. Spearheading the trend is IBM. Transitioning from a classic multinational corporation with separate business enterprises in many different countries, IBM is becoming a truly global company whose work can be divided and parceled out to the most efficient locations.[1]

For individual engineers in the U.S. and Europe, however, the offshore outsourcing of technology jobs has been nothing less than agonizing. In 2003, the McKinsey Global Institute reported that over the next three years U.S. offshoring would be expected to grow at 30 to 40 percent a year.[3] Worse, it estimated that more than half (52%) of engineering jobs may be amenable to offshoring over the long term.[4] The information technology (IT) analyst Forrester Research also projects that the number of U.S. jobs offshored will increase roughly to 3.3 million by 2015, accounting for a loss of some $136 billion in wages.[3] Ahead of



A truly global technological economy has been a boon to myriads of both national and transnational corporations. ***But at what cost to local engineers?***

the curve, IBM, the world's largest IT company, anticipated laying off as many as 13,000 workers in Europe and the U.S., while creating 14,000 new jobs in India in 2005.[1]

And this is not the whole story. Citing data for the non-manufacturing sector from 1979 through 1999 as compiled by the U.S. Bureau of Labor Statistics, the McKinsey Global Institute further reports that 31% of workers who lost their jobs through offshoring were not fully reemployed.[5] That statistic was closely mirrored by a finding from the 2004 unemployment survey conducted by the Institute of Electrical and Electronics Engineers (IEEE) employment assistance committee, which reported that 36% of all respondents had indicated that they had yet to find a job.

Worse, two thirds of all respondents to the 2004 survey agreed that finding a new job was very difficult.[6] Consider the following responses: When asked for their perception about the prospects for a long-term demand for engineers in the U.S., only five percent of the respondents described the prospects as *excellent*, while 24% described the prospects as *poor*. When asked if they would recommend engineering as a profession to their sons or daughters, less than a third (27%) of the respondents answered in the affirmative, 32% were not sure, while 41% said they would not recommend engineering at all to their sons or daughters. When asked an open-ended, follow-up question on what IEEE should do to help its unemployed members, the largest group (37%) urged the institute "to do something to protect the supply of domestic engineers. Of these, most wanted the institute to take steps to get [the U.S.] Congress to reduce H-1B visas and stop the [offshore] outsourcing of U.S. jobs."[7]

Indeed, offshoring has put individual engineers in an awkward position. Today it's American electrical engineers versus Indian electrical engineers, American civil engineers versus Filipino civil engineers, and American mechanical engineers versus Chinese mechanical engineers, for instance. Thus, engineers in the developed nations find themselves in uneasy competition with engineers in developing nations with whom they previously shared only mutual regard and solidarity—before the floodgates of offshoring flung open from the United States and Europe.

With the growing concern that sustained offshoring could risk the vitality, if not the viability, of engineering professions in developed nations, how should engineers and engineering professional societies and organizations respond? What principles can be fairly invoked to guide us in facing such a challenge? Should the goal be to restrict offshoring? What effects might it have on a global engineering community?

LOCAL ETHICS OF ENGINEERING

That the world economy has globalized was aptly captured by an ad campaign, which the car manufacturer Toyota ran in Cambodia 12 years ago:

> *"It's the global village. We live here. You do, too. We're neighbors . . . We will do our part to bring the world together by building up the global auto industry . . . For the first half of the century we thought of ourselves as a Japanese company . . . Now we think of ourselves as a world company. Our responsibility is to everyone."* (from *Cambodia Daily*, 7/13/94)

Yet, even as the world reaches out in a global economy, it is simultaneously renegotiating economic and social relations in local communities.[8] Indeed, without the localizing part, globalization is merely a disembodied ideal. The local ethics of engineering—provide guidance on the interests, conduct, and relations of engineers in local communities within the context of a *global village*. Such a local ethics of engineering encompasses two lines of reasoning: (1) the ethics of identity; and (2) the ethics of efficiency. [The local ethics of engineering as defined here complement the global ethics of engineering (see article on the global ethics of engineering in THE BENT, Summer 2003).[9]]

ETHICS OF IDENTITY

Princeton philosopher Kwame Anthony Appiah has written at length on the ethics of identity. He asserts that one's capacities constitute one's identity—that is, a person constructs his or her identity as a creative response to his or her capacities.[10] Thus, at the core of one's identity are one's unique capacities. In the context of engineering, capacities could mean the unique engineering capacities that constitute specific engineering identities (civil, mechanical, agricultural, electrical, biological).

The notion of a capacity-based identity suggests two basic values that we should strive to preserve: (1) the exercise of those unique capacities (which in the case of engineers directly lead to service for the enhancement of human welfare); and (2) the fostering of solidarity with others possessing the same identity.[10] Hence, having constructed such unique professional identities and made such identities theirs, U.S. engineers owe it to themselves and the public they serve to maintain the exercise of their unique capacities that constitute their identity, sustain their solidarity with others who bear the same identity, and, most important, enable them to serve and enhance human welfare.

IS OFFSHORING UNETHICAL?

By moving the jobs of certain groups of U.S. engineers, offshoring severely curtails the engineers' exercise of their capacities. Consequently, it undermines their identity (both individual and collective) and their capacity to serve the public.

Thus, based on such an ethics of identity, U.S. engineers have the responsibility—not only to themselves but also to the public they serve—to sustain their capacity-based identity. In the face of offshoring, that responsibility logically calls for defending and preserving the economic conditions that enable and allow them to exercise their capacities locally. Such vital tasks can be most directly accomplished through their working together with policymakers to curb the offshoring of jobs.

And to do so, U.S. engineering societies must take the lead, because they constitute the locus of the collective identity and professional solidarity of their respective members. Truly, a globalizing-localizing world has transformed the current role of engineering societies and organizations. Engineering organizations now must ensure that the economic conditions that enable their members to exercise their capacities are duly preserved. Failure to assume such function will surely imperil not only the livelihood of its members, but also the very future of their professions (and the organizations themselves).

In exploring the relationship between the individual and the state, Appiah invokes the philosopher Isaiah Berlin's concepts of *negative* and *positive* liberties. According

to Berlin, *negative liberty* is protection of the individual from governmental intervention in certain areas of people's lives, and *positive liberty* refers to help from the state and society to enable people to construct and live out an identity.[11] In our age of offshoring, it is no longer an option, but a prime duty of engineering societies, to work together with their governments to secure positive liberty for their members—that is, to engage their governments to enable U.S. engineers to live out their capacity-based identities and to enact pertinent policies to preserve the vitality and viability of their professions.

Why is this so important? Without taking care of and preserving one's capacity-based identity in the local level, one's capacity-based service at the global level is annulled. Expressed positively, it is the fulfilling of one's local responsibilities that leads one to be of service to the rest of the world. This calls to mind Appiah's conception of *rooted cosmopolitanism*, which allows that an appeal to moral universalism does not preclude the legitimacy of allegiance or partiality to certain groups.[12] As Jonathan Freedman of the University of Michigan deduced from this concept, "Without a deeply felt commitment to the local, there can be no genuine sense of obligation to the universal—and vice versa."[13]

It is important to note that in a globalizing-localizing world, the ethics of identity apply not only to local communities of engineers in the United States, but equally to local communities of engineers in India and other low-wage, low-cost countries. Each community owes it to itself to seek to preserve the economic conditions that enable its members to exercise their capacities and thus preserve their capacity-based identities.

ETHICS OF EFFICIENCY

The exercise of one's capacities to sustain one's identity must be done efficiently, because the exercise of these capacities is also subject to the influences of circumstances beyond one's control. Real-world circumstances, such as globalization and offshoring, enforce that the exercise of one's capacities must be kept efficient.

What the ethics of efficiency fosters is responsibility for a capacity-based service that maximizes comparative advantage or specialization. Thus, while the ethics of identity is focused on defending and preserving the economic conditions that enable U.S. engineers to exercise their capacities by working with policymakers to curb the offshoring of engineering jobs,

Many U.S. engineers are tormented by a vague notion that it would be unconscionable and even unethical for them to protest offshoring because it is benefiting people in developing countries.

Two facts should dispel such notion: (1) the global open market operates by managed trade, not by free-market free trade; and (2) the local ethical responsibilities that U.S. engineers must themselves fulfill.

the ethics of efficiency is centered on maximizing the comparative advantage of U.S. engineering through continual retooling or refocusing capacities.

Trade, even of services (or engineering jobs), is not a zero-sum game. A study by the McKinsey Global Institute indicates, for instance, that offshoring creates a net gain for the U.S. economy of 12-14 cents on every dollar offshored.[14] The study also finds that "of the full $1.45 to $1.47 of value created globally from offshoring $1.00 of labor cost, the U.S. captures $1.12 to $1.14, while the receiving country captures, on average, just 33 cents."[14] Thus, a certain level of offshoring will likely be considered by some U.S. companies as strategically necessary. That means that U.S. engineers have the paramount responsibility of continually retooling and refocusing their professional capacities to maximize their comparative advantage.

That offshoring both induces increased efficiency and also promotes specialization (i.e., greater comparative advantage) locally was suggested by a recent report by the bureau of labor statistics on the decline in the number of employed U.S. technical workers in six major computer and engineering classifications from 2000-04.[15] The report showed that the largest employment drops for computer programmers (-24%), electrical & electronics engineers (-23%), and computer scientists & systems analysts (-16%) were offset by increases for computer & information systems managers (+48%), computer hardware engineers (+16%), and computer software engineers (+10%). IEEE-USA President Gerard A. Alphonse was quoted as saying that, "The drop in computer programmers and rise in managers reflect the trend toward offshoring of programming jobs and the resulting need for professionals to manage outsourced projects."[15] Offshoring indeed appears to drive job differentiation and specialization based on efficiency and comparative advantage.

Also, the issues of efficiency and comparative advantage in engineering within the context of economic globalization and offshoring carry critical implications for U.S. engineering education. Our engineering schools, as a matter of ethical responsibility, must be aware of and nimbly responsive to global trends and make timely and pertinent adjustments in their curricula with a view to retooling and refocusing engineering capacities for maximizing comparative advantage. An ad recently run by Credit Suisse Asset

Management in the *Financial Times* delivers a fitting message: "Our perspective is global, so we'll never miss a local opportunity."[16]

OFFSHORING, ETHICS, AND THE FUTURE OF U.S. ENGINEERING

The local ethics of engineering sharply focus on two fundamental truths about offshoring in a global economy: (1) the ethics of identity underscores that offshoring will in all probability remain, but should be curbed through policy; and (2) the ethics of efficiency highlights that the impact of offshoring on engineering employment should be modulated by maximizing the comparative advantage of U.S. engineering through continual retooling and refocusing of its capacities.

Many U.S. engineers are tormented by a vague notion that it would be unconscionable and even unethical for them to protest offshoring because it is benefiting people in developing countries. Two facts should dispel such notion: (1) the global open market operates by managed trade, not by free-market free trade; and (2) the local ethics of engineering presented here draw attention to the local ethical responsibilities that U.S. engineers must themselves fulfill. The fact is that offshoring in its current unrestrained form does constitute a clear and present danger to U.S. engineering. Curbing the currently dizzying rates of offshoring to achieve a workable level of strategic offshoring would be compatible with managed trade and should neither be detrimental to U.S. engineering nor insensitive to America's low-wage, low-cost partner nations.

There are no piece-meal or quick fixes for managing offshoring. More important, it would be naïve for U.S. engineers and their professional societies to think that managed offshoring would simply be served up to them on a silver platter. They must recognize that offshoring builds a strong nexus of interests among America's corporate boardrooms, Wall Street, and the government.[17] Thus, U.S. engineers, with a concerted and concentrated effort, must get to the very roots of offshoring if they truly desire to be effective in curbing and managing its accelerating growth. Indeed, what they need is not the establishment of engineers' unions across the country as some have recommended, [18] but the assembly of a powerful army of engineering lobbyists in Washington, DC. In the face of unrestrained offshoring, deploying such powerful lobbyists in the nation's capital is not only the pragmatic thing to do, but the ethical thing to do—both for the interests of engineers and the long-term interests of the United States.

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References

1. Lohr, S., "At IBM, Cutting Here and Hiring There," *International Herald Tribune*, June 25-26, 2005, p. 15.
2. Zylstra, S.G., "Offshoring is Fundamental," *TEQ Magazine*, May 2004.
3. McKinsey Global Institute, "Offshoring: Is It a Win-Win Game?" San Francisco, CA: McKinsey & Company, Inc., August 2003, p. 7.
4. Colvin, G., "America Isn't Ready," *Fortune*, July 25, 2005, p. 74.
5. McKinsey Global Institute, op. cit., pp. 13-14.
6. Institute of Electrical and Electronics Engineers, 2004 IEEE-USA Unemployment Survey Results, New York, NY: IEEE, November 29, 2004, p. 3.
7. Ibid, p. 4.
8. James, P., Relating Global Tensions: Modern Tribalism and Postmodern Nationalism, Department of International Relations, Australian National University, Canberra: National Library of Australia, June 2001, pp. 1-5.
9. Cuello, J.L., "Toward a New Global Ethic for Engineers," THE BENT of Tau Beta Pi, Summer 2003, pp. 36-39.
10. Appiah, K.A., *The Ethics of Identity*, Princeton, NJ: Princeton University Press, 2005, pp. 17-21.
11. Ibid, p. 27.
12. Ibid, pp. 213-272.
13. Freedman, J., "The Ethics of Identity: A Rooted Cosmopolitan," *The New York Times*, June 12, 2005.
14. McKinsey Global Institute, op. cit., p. 12.
15. McManes, C., "U.S. Technical Employment Falls by More Than 220,000 Workers from 2000 to 2004," U.S. News Wire, March 3, 2005.
16. Credit Suisse Asset Management, *Financial Times Weekly Review of the Investment Industry*, June 27, 2005, p. 5.
17. Greider, W., "America's Truth Deficit," *The New York Times OP-ED*, July 18, 2005, p. A23.
18. Boykin, D., "Unions Seek to Add PEs, Other Professionals to Their Ranks," *Engineering Times*, May 2005.

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Chapter VII

Offshoring as an Ethical Issue

Removal of jobs from one country to another to exploit lower paid workers tends to raise objections from those whose jobs are removed. However, historically, such jobs have tended to be low-wage, low-skill jobs, and the people holding them have typically not been able to mount effective resistance. Recently, highly skilled, highly paid IT jobs have begun to be exported from the United States, and although some of the questions raised are the same as for the earlier low-wage jobs, there are some different considerations.

What are the relevant ethical considerations involved in exporting jobs to exploit lower wages? In certain circumstances, there seems to be nothing wrong with this practice. If, for example, the currency exchange rate makes work done in the U.S. cheaper than work done in France, but otherwise the standards of living of the workers in the two countries are comparable, it is hard

to see an ethical issue here. This seems to be a form of arbitrage on labor prices. "Arbitrage" is defined as buying the currently relatively low-priced commodity and selling the currently relatively high-priced commodity in the expectation that the market will correct one or both prices. In liquid markets, it serves a scavenger function to even out price disparities. For example, New York-London gold arbitrage is a recognized function performed by some firms. They buy the cheaper gold and sell it into the more expensive market. The net effect is to reduce or eliminate price disparities. It is a sort of benign communication function in a market economy, helping to even out prices consistently throughout markets.

Although offshoring has some of the features of arbitrage, it does not seem to have all the relevant features that make arbitrage a benign, healthy function of a market economy. The most important difference is that the "commodity" subject to arbitrage in offshoring is labor. In a true arbitrage situation, the commodity's location does not change the nature of the commodity, and this is why price differences in gold are simply fluctuations due to market functioning. But it makes a big difference where labor is located. The whole point of offshoring jobs is precisely that we don't want to move laborers from India or China to the United States, because then we would have to pay them prevailing U.S. wages. For offshoring to work, we must take advantage of a social context with prevailing lower wages. Offshoring is in fact a new ethical problem brought about by the availability-at-any-location feature of information technology. By the use of IT, we can take advantage of social contexts with prevailing lower wages when the relevant features of the job can be performed great distances away.

Professional Ethical Considerations

Offshoring is, first, a form of outsourcing and all the normal considerations that apply to outsourcing continue to apply when the outsourcee is a continent away. The ethical consideration here is due diligence on the part of IT professionals and managers to ensure that outsourcing will provide net benefits for the organization and its stakeholders. Of course the primary benefit for offshoring is to save personnel costs with at least equal quality of work. A major concern both with "regular" outsourcing and offshoring is the separability of offshored work. If constant feedback between the involved companies is needed,

On Justifying Outsourcing and Offshoring

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Abstract

The practices of outsourcing information technology work domestically and offshoring it internationally call for both ethical and economic justifications. Ethically, each company displacing workers needs to consider the effects on the workers displaced, those remaining employed in the company, and the community in which this happens. Not often considered is whether the recipient of offshored work as well as the recipient's country receives unalloyed benefits. Economically, long- range considerations as well as immediate advantage need to be weighed against one another. This paper also considers how well Ricardo's law of comparative advantage supports offshoring. Further, mathematical considerations adduced from game theory and the economic analyses of Gomory and Baumol suggest a somewhat different perspective on these difficult issues. The paper also treats the consequences of current practice for an entire country where numerous, if not yet all, companies engage in offshore outsourcing. The conclusion suggests various means of dealing with this problem constructively.

Keywords: Offshoring, outsourcing, law of comparative advantage, law of comparative advantage/costs, Ricardo, jobs

Introduction

Terms and Distinctions

It would be helpful to define terms that appear in this and other discussions of the present topic.
Law of "comparative advantage/costs – [Intercountry] "trade will take place where cost differences exist" (Bannock, Baxter and Rees, 1972). If a country benefits from having a cost ratio of commodity X to commodity Y, more favorable than the ratio in some country elsewhere, commodity trade in X and Y should take place and be mutually advantageous.

Offshoree – employee or company in a country different from the offshorer
Offshorer – a company that procures the services of employees abroad often after training them
Offshoring – the practice training and or hiring employees in another country to perform work traditionally done in one's own company
Outsourcee – domestic company from whom goods and services are obtained
Outsourcer – domestic company contracting to have services performed by an outsourcee
Praxeology – the study of how humans actually behave
Value added – "difference between cost … and eventual selling price; features that differentiate one product or service from another and thus create value for the customer" (Business, the Ultimate Resource, 2002)
Zero sum game – "A game in which players make payments only to each other. One player's loss is the other player's gain, so the total amount of "money" available remains constant." (Weisstein, 2004)

The Main Issues

Normally the populace in a free-market country would accept the notion that companies should seek to lower costs in the pursuit of higher profits, even though some jobs would be eliminated. For instance there might be understandable reasons to outsource: the outsourcee might have more expertise and "the infrastructure to provide the reliability …needed." (Biggs, 2004) However, there has been much more opposition when the cost reduction involved offshoring rather than intracountry outsourcing of highly paid IT and other knowledge industry jobs.

Just when consternation over intercountry manufacturing and free trade has subsided a bit, a new complaint has arisen over a more recent trend of offshoring jobs that were previously immune to export; after all, diligent work backed up by a high level of education was supposed to guarantee job security and a just reward for all aspiring employees. Perhaps the extent of the publicity given to the resentment of outsourcing is as much due to the nature of the victims as to the political ramifications of this trend: "As long as the American jobs going offshore were blue-collar jobs, the political issue did not attain the heat it has now that white-collar job losses frighten a more articulate, assertive social class." (Will, 2004) The decimation of the middle class is often predicted. In fact, "Forrester Research estimates that 3.3 million American white-collar jobs will leave the U.S. by 2015." (Tapper, 2004) Clearly, the United States will be not the only nation to feel the brunt of outsourcing; any country with a strong service economy will also feel the effects of this development--on top of the still smarting loss of many manufacturing jobs.

Former President George W. Bush's chief economic adviser and highly respected economist, N. Gregory Mankiw, far from bemoaning the trend, very bravely (though some would say foolhardily and insensitively) remarked: "It's something that we should realize is probably a plus for the economy in the long run …. Outsourcing [is] just a new way of doing international trade." Mankiw went on to say:

> "We're very used to goods being produced abroad and being shipped here on ships or planes; what we're not used to is services being produced abroad and being sent here over the Internet or telephone wires….But does it matter from an economic standpoint whether values of items produced abroad come on planes and ships or over fiber-optic cables? Well, no, the economics is basically the same." (Tapper, 2004)

An executive at Goldman Sachs Asia, Ken Courtis, further endorsed the idea that offshoring jobs makes good economic sense: "We pay hundreds of thousands of dollars a year to hire a good engineer…. You can hire 10 engineers for that price in India. And much of their work can be transferred back and forth over the Internet."
Thus the very telecommunications networks built by American engineers are now being used to make these same engineers obsolete. Moreover, they are urged to feel okay about offshoring, according to George Will: "For the highly competent workforce of this wealthy nation, the loss of jobs is not a zero-sum game, it is trading up in social rewards." (2004) A zero-sum game is an encounter in which a gain by one party or side generates a loss by another party or side. So Will evidently believes that at least everybody who is competent is a winner in the offshoring game—a conclusion that certainly invites further investigation.

Now the term game implies "a conflict involving gains and losses between two or more opponents who follow formal rules." (Weisstein, 2004) The invocation of game theoretic terms is particularly inappropriate (unless we grant poetic license), since offshoring is not a game in this technical sense: there are no formal rules, hence no "players" who follow definite rules. One also needs to specify who all the players are. On the one side we have companies, foreign workers, and perhaps world-wide customers; on the other side we have displaced domestic workers. Nor is offshoring a non-zero sum game (by the definition given earlier), even if we permit the metaphor of "game." This is because the "players" do not make payments only to each other, and the total amount of money is not constant. The social rewards mentioned by Will can only be construed as lower prices, but the lower prices achieved by offshoring are not guaranteed for those goods normally purchased by the workers who are displaced by their company's offshoring. If software is cheaper as a result of offshoring, that price reduction does not benefit the displaced workers or their families very much. Even if the lower prices due to offshoring did benefit the displaced workers somewhat, would their likely reduction in income from that of a technical professional's salary to that of unemployment compensation or the wages of an unskilled job be a fair trade-off? The psychic cost might be enormous as well. One could perhaps justify offshoring by the lights of a rudimentary utilitarianism: as conducing to the greatest good (actually, pleasure) for the greatest number. After all the grand total of the company stockholders, the customers, and the offshore workers exceeds the number of displaced workers. However, there are two objections to that claim, namely,

(1) The widely dispersed benefits achieved through the practice of offshoring are so diluted among these beneficiaries (constituting the greater number), that it does not compensate for the magnitude of pain felt by the displaced workers. With regard to the general issue of dilution of a dispersed good: would forcible confiscation of a person's money and distributing a penny from these funds to as many different individuals as possible, make up for the injustice of totally impoverishing the deprived individual?

The point is that intensity of one sacrificial individual's pain must be considered along with the number of beneficiaries/victims in any utilitarian calculation. This factor of intensity of pain or pleasure is here offered as an amendment to utilitarianism and also points out its inability to justify offshoring at the great expense of a few. It will be argued later how the few in pain will multiply.

(2) If the practice of offshoring is generalized (so that the present offshore workers will in turn lose their jobs to yet another country with even lower wages) the workers in both countries might fall to the same level of misery. There would always be the threat that some other country's workers would work for even less money, and so on. Consequentialism is the ethical position that (long term) consequences matter most, or that an action is to be evaluated solely by its consequences. What is lacking in both varieties of consequentialism, however, is a metric by which to compare consequences. If we offer intensity of pain and pleasure as the metric, where intense pain trumps more widespread pleasure, a deontological (or duty-based) ethical framework might offer just the resolution needed: desirable goals (like lower prices) can never justify causing the intense pain of unethical actions.

Is Economic Justification by the "Law of Comparative Advantage/Costs" Valid?

Classical economists posit that whichever country can do a type of work X and carry out the requisite production most efficiently should be accorded the job producing X, even if X is something another less efficient country wishes to do. This much follows from the doctrine of the specialized division of labor, perhaps first enunciated in Plato's Republic. Note, however, that Plato considered a division of labor only within the state and not between states. Economists, like Adam Smith and David Ricardo, however, have generated an intercountry corollary of this doctrine that could be stated as follows:

Ricardo proposed the following scenario and conclusion: Suppose England and Portugal could both produce two types of product, say cloth and wine. Now if England could make cloth more efficiently than it could make wine, and Portugal could make wine more efficiently than it could make cloth, a mutually beneficial trade between England and Portugal is advisable. In that case, he advises, England should make cloth and export it to Portugal, while Portugal should engage in wine-making and export it to England. This specialization arrangement is thought to arise naturally—barring governmental interference—and would be mutually advantageous to both England and Portugal. The upper part of the chart below (Specialized Economy) provides for equal production rate and equal hours in each country for producing just one product, the one it produces most efficiently. Portugal comes out ahead, contrary to Ricardo. This part of the chart shows that the law should be modified to allow for differential domestic needs for the two products.

In contrast, the lower part of the table shows what happens if each country produces both wine and cloth and splits its production time equally on both products: while the results are not as beneficial for the two countries as predicted, lack of specialization does confirm Ricardo in that both results are not as good as those for specialization.

	England		Portugal	
Work-Time Available:	100 Ours/Week		100 Hours/Week	
Product Names:	Cloth	Wine	Cloth	Wine
Production Rate ($-Value/Hour)	12	10	10	12
Type Of Economy:				
1. Specialized Economy	In Cloth		In Wine	
Hours Devoted To Making Each Product	100	0	0	100
Total $-Value Produced	$1,200	$0	$0	$1,200
$-Value Needed To Be Imported	$0	$1,200	$100	$0
Excess $-Value To Keep Or Export	$1,050	$0	$0	$700
Surplus $-Value As Profit Or (Loss)	($150)		$600	
2. Unspecialized Economy	Produces Both		Produces Both	
Hours Devoted To Making Each Product	50	50	50	50
Total $-Value (Value) Produced	$600	$500	$500	$600
$-Value Needed To Be Imported	$0	$700	$0	$0
Excess $-Value To Keep Or Export	$450	$0	$400	$100
Surplus $-Value As Profit Or (Loss)	($250)		$500	

It is little noted that Ricardo also presented a scenario for abandoning specialization, somewhat similar to the indications of the UNSPECIALIZED ECONOMY in the lower half of the table.

> "Now suppose England to discover a process for making wine [our proxy for software], so that it should become her interest rather to grow it than import it; she would naturally divert a portion of her capital from the foreign trade to the home trade; she would cease to manufacture cloth for exportation, and would grow wine [software} for herself." (1817)

Thus, if the offshoring country ever develops the technique of producing software cheaply, it should reinstate its software industry—to the detriment of the offshoree country, with all the harm that would cause for the offshoree.

How well does the Law Apply to Offshoring?

Now the advantages in the above tables do not always obtain—different numerical assumptions might yield the reverse results, but the lesson to be learned is that Ricardo's results also do not always obtain either. Another point I would like to make with respect to offshoring software/services production is that, for the law of comparative advantage to apply, there should be some comparable exchange of (at least remotely) similar goods or services. When an offshoring country A exports jobs to an offshoree country B, the offshoring country is getting goods (say software) in return. Ricardo considered only cases in which labor and capital to stay put (i.e., are immobile) in his analyses. These items are not in the same category. This is not the type of exchange Ricardo discussed. An offshoree country is not depending on the offshoring country to supply some non-monetary good/service that it needs or may then safely stop producing. An offshoree country is getting only money.
The offshorer A might hope that an offshoree country would use its newly gained funds to buy products from A; but the offshoree might use the money it receives from A to buy goods exclusively from other countries C and D, in which case the offshoring country does not realize all the benefits it anticipated. Furthermore, an offshoree country, once it got the knack of producing original software, could then market the software on its own, thus cutting A out of the picture altogether. In that case, the original offshoring country would have enjoyed only a temporary advantage and would soon be out in the cold with respect to obtaining cheap software, in addition to having one less industry to employ its populace. One could, of course, retort that new industries in an offshoring country could take its place, but then they too would fall victim to offshoring. Even so the displaced programmers are not necessarily going to be suitable for work in the new industries.

Incidentally, it is unprecedented that when one country contracts with another country for trade, that the first country would create the expertise that will displace its own workforce, as Microsoft and IBM have done in building computer centers from scratch in India.

Frequently, persons justifying offshoring propound an overly general version of what the law of comparative advantage is, and then conclude without intervening logical steps, that it applies as stated to our issue. What follows below is a very clear explanation, which enables us to see how this law does not tell the whole story about offshoring—albeit offshoring was not the author's interest.

> "Here's one real-world example. I can walk faster than my secretary. She's a good deal older than I am and has unusually short legs. And yet, whenever I need papers hand-delivered across campus to the office of the Dean or the Provost, I send my secretary on these missions.
> "The reason I send my secretary, rather than deliver the papers myself, is that the value of what I can accomplish at my computer in the time that I otherwise would spend walking across campus is higher than is the value of what my secretary could accomplish at her computer in the time that it takes her to walk across campus and back.
> "This case is a perfect ... example of comparative advantage at work. I specialize in department-chairing tasks in my office while among my secretary's specialized tasks is the hand-delivering of documents. This specialization occurs (and is worthwhile) despite the fact that I have what textbooks would call an absolute advantage both in department-chairing tasks and in hand-delivering documents." (Boudreaux, 2004)

Unintentionally, of course, some additional disanalogies with offshoring are brought to light, thanks to Prof. Boudreaux's amusing example: he is not training his secretary to be department chair, that is, to displace him, unlike the offshorers who are training replacement programmers. Thus his actions are not harming anyone. Furthermore, the job he is exporting is neither his mainstay nor one that the secretary might one day take over.

Benefits to the Offshore-Outsourcer

Outsourcing, whether intercountry or intracountry, takes place to reduce costs and fulfill the obligation of management to its stockholders. It sometimes is the only way to obtain skilled employees who may not be available locally. In that case, there is no ethical or economics problem. Offshoring, on the other hand, involving as it does, training workers who will accept a lower wage, is merely designed to lower costs--still something good management is expected to do, but maybe not the most moral way to achieve lower costs. A former American Express Co. employee recently put it straightforwardly: "I was the guy training these [offshore-worker] greenhorns. They're asking me to transfer my skills to someone making $4 an hour." (Mearian, 2004)

Not only are wage costs reduced in the outsourcee country, but fringe benefits can be lower (and even non-existent). The offshorer also expects a grateful, more docile work force in the foreign land and one that will cause fewer labor problems.

George Will is even more sanguine; for him, it is not just a matter of cost savings, because, he says, there is a concomitant benefit of new job creation: "How many of the 4,500 U.S. jobs that IBM is planning to create this year will be made possible by sending 3,000 jobs overseas?" (Will, 2004) What he does not clarify is whether the newly created local jobs will be as highly remunerative as the ones lost or whether there wouldn't be an even more numerous workforce at IBM, if so many jobs had not been sent offshore.

Costs and Benefits to the Outsourcee

Clearly, the country in which new jobs are created would seem to be a beneficiary of offshoring. If, however, presently employed workers are hired away from other jobs, the net effect will be to cause inflation in the outsourcee country. But as a rule additional job opportunities would be created. More jobs can certainly boost the economy and raise the standard of living, but again inflation in the outsourcee may result.

Offshoring companies could think of themselves as exporting not only production-type jobs but management skills; thus they are helping to develop a class of executives in the outsourcee country who will someday run the entire operation. There is no charge for this training, a fact that makes it even more valuable to the outsourcee.

Harms to the Outsourcing Company

Offshoring not only lowers the morale of existing employees in an outsourcer/offshorer company, but also lowers the desire of potential job candidates to seek work in a company that aggressively outsources/offshores. If it ever becomes widely known that the company continually intends to replace present and newly hired employees with others outside the company (whether by intercountry outsourcing or intracountry outsourcing), the relatively competent employees will leave. Undeniably, software programmers are at risk, Aviva Litan, an analyst with Gartner Inc. reports: "[regarding] the IT development and maintenance staff for [Amex's] credit card stuff, including risk management, chargeback and all the applications associated with that…. It's going to make everyone [in Amex's IT department] really nervous. It's very scary to the employees." (Mearian, 2004)

The companies are also worried about the local consequences of offshore plans, again, according to Litan: "The reason people at American Express are so scared to tell the IT employees that they may lose their job is those employees can wreak havoc with the systems…." (Mearian, 2004)

Although companies like Amex want to maintain quality in the workforce, probably only the most desperate job applicants, those having the most trouble obtaining jobs, would apply to American Express, given the publicity about its plans.

There are those like Overby (2003) who claim that offshoring does not really save money.

> The current stampede toward offshore outsourcing should come as no surprise. For months now, the business press has been regurgitating claims from offshore vendors that IT works costing $100 an hour in the United States can be done for $20 an hour in Bangalore or Beijing. If those figures sound too good to be true, that's because they are. In fact, such bargain-basement labor rates tell only a fraction of the story about offshore outsourcing costs. The truth is, no one saves 80 percent by shipping IT work to India or any other country. Few can say they save even half that. As just one example, United Technologies, an acknowledged leader in developing offshore best practices, is saving just over 20 percent by outsourcing to India.

A not unlikely scenario is that with a great enough reduction in the number of employees and hence consumers at home of the products made by all the outsourcers abroad, profits would go down despite the cost savings in production.

Harms to the Offshoring Country

Unless George Will is correct, there will be a net loss of jobs in the foreseeable short run, if not the long run as well. In fact, offshoring might change the whole nature of the domestic economy, leaving as the only home-industries, those which for physical reasons cannot be exported, e.g., emergency medical care! Further, the domestic economy would be in ruins as the severed employees become unable to keep up payments on mortgages and other loans or buy as many products.

There are also foreseeable harms as the offshoree develops enough efficiency to compete in the industry involved. As Gomory and Baumol suggest:

> It is often true that improvement in one country's productive capabilities is attainable only at the expense of another country's general welfare. An improvement in the productive capability of a trading partner that allows it to compete effectively with a home country industry, instead of benefiting the public as a whole, may come at the expense of that home country overall. And this harm is not … localized damage …, loss of jobs in the immediately affected industry, but an adverse effect that is felt throughout the home country. (2000)

Further Ethical Considerations

There is a surprising altruistic result stemming from the division of labor among nations. Ricardo's law seems "to demonstrate what the consequences of the division of labor are when an individual or a group, more efficient in every regard, cooperates with an individual or a group less efficient in every regard." (Anonymous, 2004) Praxeology may reveal how it happened that, even in humankind's early history, ostensibly self-serving acts like offshoring can bear wholesome social fruit:

> "If and as far as labor under the division of labor is more productive than isolated labor, and if and as far as man is able to realize this fact, human action itself tends toward cooperation and association; man becomes a social being not in sacrificing his own concerns for the sake of a mythical Moloch, [namely] society, but in aiming at an improvement in his own welfare." (Anonymous, 2004)

Although there is normally no written contract specifying company loyalty to employees, it is probably implicit. Companies would only fire employees for cause or exigency. So there is a desire of companies for loyalty from their employees, but they treat the employees as disposable commodities whenever lucrative company contracts are terminated or the pressure to increase the bottom line transcends expected reciprocal obligations. Offshoring is not undertaken as a result of some fault of the severed employee or even of harsh business conditions, but rather to strive for profit at all costs. While there are few career guarantees in life, one would expect that promises of diligent and continuing knowledge acquisition, as long as the knowledge is not obsolete, would lead to a degree of job security. Companies might offer their employees options other than being severed.

As was stipulated earlier, companies have an obligation to their stockholders to increase company revenues and drive down costs. At first the stockholders may outnumber the number of displaced employees, a circumstance that is perhaps justified by the utilitarian dictum of always acting to achieve "the greatest good for the greatest number." But eventually, as the practice of intercountry outsourcing spreads in a society, the numerical balance will shift towards more displaced employees. Such a state of affairs suggests that we (further) revise the philosophical dictum of always acting to achieve the immediate greatest good for the greatest number to read "the greatest good for the greatest number in the foreseeable future, without doing evil." Additionally, one might proffer a new law in economics, the "law of long-term disadvantage": "What appears to be an unalloyed immediate advantage can become a long-term disadvantage." Gomory (2004) reported that an analysis of his economic model showed that initially the outsourcee enjoyed a great advantage in relation to the outsourcer, but over time both suffered, even as the world as a whole profited from their arrangement. Can this practice of intercountry outsourcing be defended by saying that new inventions will always appear to give birth to new industries, and new products will be demanded in the outsourcing country, which will absorb the ("temporarily") unemployed? What is to stop these new industries from offshoring in turn, shortly after they form?

Topics for Future Research

1. To what extent does intercountry outsourcing help the outsourcee country by [a] alleviating poverty, [b] improving the political and social climate, and [c] inculcating sound management techniques (sounds condescending but the intention is good) in place of antiquated ways.
2. Is there any early indication that eventually some outsourcee countries are reversing the process and becoming outsourcer countries?
3. Has any outsourcee country eventually become an equal trading partner with the original outsourcer?
4. There is a need to investigate these phenomena: [a] cultural and linguistic barriers that can cause problems, such as serious omissions, defects, and sabotage; [b] language barriers may mean that important project details are not understood; [c] there are different ideas of customer service and work ethos. How have these issues been treated so far? How significant are these issues?
5. Is there any tendency of labor exploitation practiced by the offshorer?
6. Will environmental conscientiousness and product quality control suffer as a result of offshoring?

Conclusion

Companies should not look to offshoring IT as a way of solving their major financial problems, though it could alleviate staffing problems. IT does not constitute that great a part of a company's expenses. Studies have shown that poorly run companies do not gain much by intercountry outsourcing. (Strassman, 2004)
The final accounting of whether offshoring is beneficial or detrimental, and to whom, has yet to be tallied; but George Will (2004) suggests a way out of a critical ethical dilemma:

It is sound social policy, and simple justice that the party who benefits from free trade—the nation as a whole—should be taxed to ameliorate the discomforts of those who pay the short-term price of progress.

Of course, this solution may not be especially gratifying to the self-esteem of ex-employees, nor does it cover the possibility that, in the long run, there may not be enough employed taxpayers to handle the proposed additional burden. On the other hand, if instead of offshoring, if domestic employers encouraged cooperative competition in quality of production with the foreign workers—in other words a fair game--it might yield better products, something not realized by the present state of affairs. If, in addition, education of present and prospective workers were enhanced both domestically and abroad, the "game" might turn out to be win-win.

References

Anonymous. The Ricardian Law of Association, Chapter VIII, Human Society, 4, February 21, 2004 http://www.mises.org/humanaction/chap8sec4.asp

Anonymous (2002). Business, the Ultimate Resource, Perseus Publishing, Cambridge.

Bannock, G. Baxter, R. E. and Rees, R. (1972) The Penguin Dictionary of Economics, Penguin Books, New York, 391.

Briggs, L. Should we outsource IT?, Campus Technology, November, 2005, p. 24.

Boudreaux, D. (2004) Revisiting the Law of Comparative Advantage, Mises Economics Blog, February 22, http://www.mises.org/blogDetail.asp?control=1383.

Gomory, R.(2004) Keynote speech at CORS/INFORMS (Canadian Operations Research Society/Institute for Operations Research and the Management Sciences), Banff.

Gomory, R. and Baumol, W. Global Trade and conflicting National Interest, MIT Press, Cambridge, p. 4.

Mearian, L. (2004). Amex on the defensive about offshore plans, Computerworld, http://www.computerworld.com/managementtopics/outsourcing/story/0,10801,89944,00.html

Overby, S. (2003) The Hidden Costs of Offshore Outsourcing, CIO Magazine, Sep. 1, 2003. http://www.cio.com/archive/090103/money.html. Ricardo, D, On the Principles of Political Economy and Taxation, 1817.

Strassman, P. Most Outsourcing Is Still for Losers, Computerworld, Feb. 2, http://www.computerworld.com/managementtopics/outsourcing/story/0,10801,89533,00.html

Tapper, J. (2004) Exporting American Jobs; Bush Adviser's Comments Ignite Firestorm, Bring Attention to Trend, Feb. 13, http://abcnews.go.com/sections/GMA/WorldNewsTonight/outsourcing_firestorm_040213.html.

Weisstein, E. W. MathWorld--A Wolfram Web Resource. http://mathworld.wolfram.com/Zero-SumGame.html

Will, G. (2004) Dennis Hastert Is Confused, Arkansas Democrat Gazette, Feb. 20, 10B.