

The Blog vs Big Brother: Information and Communication Technologies and Human Rights, 1980–2005

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ABSTRACT

Information and Communications Technology (ICTs) mark the current wave of globalization. Skeptics of globalization, particularly neo-marxists, suggest that the new technology will hamstring governments at the expense of ordinary people, leading to exploitation and social dissatisfaction. Others suggest that the new technologies will empower people at the expense of states, improving human rights and social justice by raising the costs of social control by predatory rulers. We address the issue by specifically assessing the effects of older technologies relative to new ones, rather than what has been tested in large-N studies to date. We find very clear results suggesting that new ICTs, particularly access to the internet, has benefits for human rights net of a whole host of controls when assessed against the effects of older technologies. Our results are robust to a host of different controls, testing methods, and to the inclusion of time trends as a separate variable. The results taken together do not provide cause for concern that new technologies will stifle human rights and social development, demobilizing dissent.

INTRODUCTION

The widespread use and diffusion of information and communication technologies¹ (hereafter ICTs) apparently distinguish the current wave of globalization from previous ones. The ICT revolution has simply increased the connectivity of people with fundamental and transformative consequences. In fact, ICTs define the so called Information Society (Castells 1996, Carey 1998, Giddens 1999, Kacowicz 1999). Scholars point out that ICTs alter all many realms of our individual and collectives lives, facilitating socio-political, cultural and economic transformations all over the world with near instantaneous speed. However, there is no real agreement as to the true nature and consequences of these changes. We can generally sort the broad range of opinions into three perspectives (Norris 2001). The cyber-optimist claim that ICTs facilitate freedom of expression and access to knowledge and information, generating changes in production processes, commerce, government, education, citizen participation and so on, and therefore, creating substantially new forms of economic growth and social development due to the spread of ideas and information (Goldin and Reinert 2006). The cyber-pessimist perspective emphasizes the negative effects that ICTs may have on our societies: the risk of surveillance, concentration of wealth, elite control of information and the growth of inequalities (Sassen 1997). Finally, the cyber-sceptics argue that ICTs do not have significant effects on societies, despite the hype. The empirical evidence on these issues remains inconclusive. We address this fundamental issue by disaggregating older technologies from the new ones, assessing the impact of phones and internet access separately on government respect for human rights.

¹ ICTs are “a varied set of goods, applications and services that are used to produce, store, process, distribute and exchange information, includ[ing] the "old" ICTs of radio, television and telephone, and the "new" ICTs of computers, satellites and wireless technology and the internet” (UNDP 2001).

ICTs and Human Rights

Following the classification of Richards (2002), there are apparently three large perspectives on ICTs and human rights: the positive perspective, the negative perspective and the null perspective. The positive perspective is based on the idea that the prevalence of ICTs ‘shrink’ the world through time-space compression that binds people around the world as a community. Information on an injustice anywhere is now reported and acted on everywhere. The fact that ordinary citizens have access to information from across state boundaries increases awareness of domestic conditions and catalyzes change. ICTs can also spread values and ideals relating to human rights, for instance, “if the dispensation of democratic ideals is associated with actual democratization, the diffusion of these ideals may help human rights” (Richard 2002). ICTs can help to disseminate fast, accurate information on human rights abuses taking place somewhere to the human rights community, making some previously invisible situations visible. Activists across borders can raise the costs for governments that violate human rights, forcing change (Keck and Sikkink 1998).

The negative perspective maintains that greater access to information and exposure of the true conditions of people relative to others can drive up dissatisfaction. These discontented citizens will make demands that threaten the status quo. The greater connectivity of people will pose lower collective action problems for making dissent effective. According to the literature on state repression, human rights violations can occur when state elites are threatened by effective dissent (Poe and Tate 1994, Poe, Tate and Keith 1999, Richards 1999). The greater availability of information then can lead to effective rebellion and rebellion increases repression (Gurr 1970, 1986, Muller 1972, Tilly 1978, Brown 1996, Davis and Ward 1990). The null perspective does not see a role of ICTs in these matters either way. ICTs may empower governments as much as it may empower people, so that the net effect may not be

associated with either good or bad human rights. Governments can use ICTs to monitor people, filter information, and manipulate reality, suggesting that there is nothing remarkable about the new technology. Moreover, the penetration and use of ICTs is very unevenly distributed around the globe, creating digital divides between countries and within societies. The sceptics also argue that, “information is a commodity”, therefore, those who are in the most vulnerable position with respect to human rights violations, the poorest and the disadvantaged, do not have access to connectivity (Richards 1999, 2002). The hypothesis of this perspective, therefore, is that ICTs will not have any significant effect on governmental respect for human rights.

The issue of ICTs and human rights speak directly to debates on globalization, where the consequences of globalization for state capacity, autonomy, and legitimacy are debated vigorously. If the positive view is correct, the spread of ICTs fundamentally constrain the autonomy of states—a source of good. If as liberals believe, state autonomy might interfere with good societal outcomes in ways that threaten communitarian interests, then the loss of state autonomy to coerce society in ways that suppress the aspirations and rights of people is not a bad thing. Liberals point to the fact that it is states that are generally violators of individual rights, thus, the loss of autonomy might mean the empowerment of social actors, an improvement for safeguarding individual rights. ICTs, in other words, empower people to control states in ways that prevent states from easily repressing dissent (state violence against citizens). Others, usually from the left of the political spectrum, argue that globalization and the power of ICTs empower some (the powerful) to escape state authority and undermine communitarian interests because states controls and regulations will be subverted more easily. State autonomy to control and restrict the harmful effects of capital markets, for example, or the ease with which capitalists may avoid taxes due to the new economy are often cited in

support of this position, not to mention the ease with which terrorists and rebel groups access finance and weapons.

As neo-Marxist, sceptics of globalization may see it, states provide an important function of controlling market forces that threaten societal interests. Since capitalism is extremely anarchical and destructive, states are required to act in ways that ease capitalist crises. In the new, high tech economy, it may lose this functional capability, leading to societal dissent and the erosion of legitimacy. In other words, states may lose control over information flows, which may threaten legitimacy and capability to govern effectively.

If ICTs empower people because it allows access to information flows and enhances the connectivity of people, then the outcome for society is ambiguous depending on how one sees what the access to ICTs are good for. Crooks and deviants can delegitimize states and reduce its autonomy (state capacity for acting in the public good is reduced) which increases social dissatisfaction, or a state's capacity to coerce and control people are reduced, leading to better human rights outcomes. Notice, however, that ICTs could lead to greater challenge of the state; i.e. increase the level of social dissent in a society, as well as raise the costs of state repression—which makes the final outcome in terms of the violation of human rights quite ambiguous. In other words, does higher repression mean greater dissent, or less repression mean decreasing dissent? This question is very difficult to answer in a large-N statistical sense, but by comparing 'old technology' with the new (ICTs) we might move forward fruitfully on this question.

We argue that the question of ICTs and social outcomes must be addressed in terms of whether or not the new technologies are 'qualitatively' different from the older technologies.

The older technology, representing the 'big brother' position, measured as access to information via television and the extent of access to landline telephones can be compared to the availability of ICT's, measured as internet access. The most famous statement about 'big brother' comes from George Orwell's novel *1984* that envisioned the loss of individual freedoms and real democracy due to 'thought control' of individuals by states with access to technology. Mass propaganda would be made easy by tools such as newspapers, television, and radio.

Modernization theorists saw the advance of technology in a more favourable light. When people have access to modern means of information and communication, plus the impact of literacy and the growth of media that such process spawn, was expected to lead to socio-economic change and democracy (Lerner 1958; Lipset 1959). Subsequently, these views were challenged by others who argued, like Orwell, that modernization can lead to 'bureaucratic authoritarianism' and that 'all good things,' such as modernization and democracy need not go together (O'Donnel 1973; Huntington 1968). Mass media in the form of radio and television could be tools in the hands of states for manipulation, rather than purveyors of information for effective organization of social forces. Thus, we view the advance of the old technology as relatively more detrimental to social outcomes than the new technology. This comparison makes sense in this context because it is the qualitative aspects of the technology that is interesting rather than technology as such.

In contrast to the capturability of the old technology for state-directed uses, the new ICTs are generally thought of as qualitatively different. Apparently, the new technology empowers individuals by allowing a wider source of information. The World Wide Web can generally be accessed by anyone. Unlike TV, the programming is theoretically anything one prefers to

choose rather than being fixed. Moreover, the new technology binds people in an interactive manner to subjects because people are free to develop their own programming, individually or collectively in groups. Internet communities may form and develop programs and courses of action relatively free of state interference or direction. In other words, cyberspace offers 'space' for collective organization, mobilization of resources, and as space for expressing dissent. Such technologies are apparently harder for states to control relative to deciding what TV stations and radios broadcast. Vitaly, the new ICTs are far more reliable and extensive when it comes to access to information.

If we turn our attention to some concrete recent events often highlighted as emblematic of ICTs, interconnectivity of people and challenge of state authority, this ambiguity between what new ICTs and old ICTs are good for becomes apparent. "The Orange Revolution", namely the revolt of the Ukrainian electorate against the government's attempt at ballot fraud during the presidential elections of 2004, shows how ICTs provided transparency and information to a wide audience that decided to bring their anger on to the streets. Despite the unfavourable context, a corrupt political system where the broadcast and print media were controlled (with the exception of one television station) and opposing journalists were intimidated and even murdered, supporters of democratic change, through the use of ICTs, managed to recruit volunteers, raise funds, organize campaigns, report breaking news and gain the attention of the global democratic community, forcing the government to back down (Kyj 2006). Massive repression was avoided through people power driven by transparency and access to information. It is clear that the Ukrainian regime found the costs of repression to high given the global media glare and the free flow of information.

In contrast, during the “Saffron Revolution” of September 2007 in Burma, the military junta decided to immobilize and disarm the essential communication tools used by citizens and journalists: cell phones and the internet. Still, a relatively small group of Burmese citizens, in a country with especially low internet penetration rates, demonstrated that ICT tools can have a strong impact on the global coverage of events, and sometimes precipitated the events themselves with effective organization. However, the government controlled media had far greater coverage, particularly outside the capital city. The junta did not back down despite adverse media effects broadcast globally. While the events in Burma provide an example of the limitations of the global media’s effect on a repressive government, the answer may lie in addressing the issue of what technology the government had in getting the message out that supporting the revolt would be costly for participants.

The two cases highlight the ambiguities about ICTs and human rights. Older technology such as TV allows governments the ability to control people by credibly committing to repress with serious consequences for participants in mass demonstrations etc. They could manipulate pictures to show why people should not come out to protest, defusing dangerous dissent. In other words, state controllable mass media could be used to demobilize people. On the other hand, access to new media may hyper-mobilize people in ways that repression rises.

This study addresses the debate by empirically examining the effects of Information and Communication Technologies on government respect for human rights in a large-N dataset.²

² Although human rights have been described as interdependent and indivisible, they have been treated separately by politicians, activists and social scientists who have divided human rights into subsets of rights. As McNitt (1986) pointed out, “one way to avoid the problems caused by global measures of human rights is to concentrate on a small subset of core rights.” Physical integrity rights are one of the subsets of rights referring to freedom from arbitrary physical harm and coercion by a government. Human rights violations in this category include extrajudicial killings, torture, disappearances and political imprisonment. For the purpose of

We address the issue by looking at the relative effects of old versus new technology rather than simply addressing the issue of ICTs on human rights. To our knowledge, there is only one empirical large-N study testing the effects of ICTs on government respect for human rights directly³. Richard's (2002) seminal study uses the concept of connectivity, measured as a country's level of access to the internet system, on government respect for human rights in a sample of 73 states for the years 1991-1996. The author concludes that there is no statistically significant direct relationship between a country's level of connectivity and its level of governmental respect for human rights. However, the results show connectivity may have a very modest indirect role in improving government respect for human rights by aiding democratization. He maintains that the results can be conditional on the very short time-frame of the analysis and on the crude existing measures of connectivity. One major drawback of the measure used, in our mind, is that the connectivity measure does not capture the extent of access to computers and internet subscriptions within a country.

We now have more than 10 more years of data. The data on various ICTs is also simply better. Thus, we use the entire period for which we have Television and telephone mainlines access (1980–2005) as well as the period for which internet access is available (1990–2005) to test

this work, we will focus on these physical integrity rights, sometimes referred to as “personal integrity” or “life-integrity rights,” for several reasons: these rights are considered universal, most of the states in the international arena have made at least tacit agreements that these types of right should be respected; focusing on these universally accepted rights allows us to generalize our arguments and findings across different regions and cultures of the world; they are one of the prevalent conceptualizations used in empirical research on human rights (Cingranelli and Pasquello 1985; Poe and Tate 1994); they are not the only rights necessary for living in dignity, but without respect for these rights, the enjoyment of other rights, such as social and cultural rights, is impossible (Shue 1980); and violations of these rights usually addresses the treatment of the political opposition within the state, the political opposition generally places demands on the state which usually include economic development, democratization and other human rights issues.

³ Richards, D. L. (2002) "Information Technology and Government Respect for Human Rights." In *Technology, Development, and Democracy*, ed. Juliann Allison, State University of New York Press.

their effects individually and comparatively. Due to a variety of confounding factors, it is not at all an easy task to connect the new ICTs with improvements in human rights globally in an empirical sense. However, a large enough dataset covering many countries can allow us to identify a general tendency. When one views ICTs as good or bad for human rights, the question is: relative to what? Thus, one useful comparison is the prevalence of new ICTs (internet subscribers and cellular phone access per 1000 inhabitants), measured against the prevalence of old communication technology (television sets and telephone mainline access per 1000 inhabitants), on the progress of human rights, controlling for a host of potential confounders. This simple correlation too, can be spurious (coincidental) because many things associated with the progress of the new ICTs (such as simply ‘time’) may explain better human rights.

DATA, VARIABLES AND METHODS

To measure the prevalence of “new” and “old” ICTs we use the core indicators of ICT infrastructure and access from the World Telecommunications/ICT Indicators Database (11th edition, 2007), produced by the International Telecommunication Union: Internet subscribers per 1000 inhabitants; television sets per 1000 inhabitants; cellular phone access per 1000 inhabitants; and telephone mainline access per 1000 inhabitants. These values are log transformed to reduce skewness and minimize the impact of extreme values.

To measure government respect for physical integrity rights we will use the Political Terror Scale (PTS) and the Physical Integrity Rights index (CIRI). The PTS measures physical integrity rights violations that a country experiences in a particular year coded on a five-point scale. The two indexes are highly correlated by far from perfect.

- Level 1: Countries under a secure rule of law, people are not

imprisoned for their views, and torture is rare or exceptional.

Political murders are extremely rare.

-Level 2: There is a limited amount of imprisonment for non-violent political activity. However, few persons are affected, torture and beatings are rare. Political murder is rare.

-Level 3: There is extensive political imprisonment, or a recent history of such imprisonment. Execution or other political murders and brutality may be common. Unlimited detention, with or without a trial, for political views is accepted.

- Level 4: Civil and political rights violations have expanded to large numbers of the population. Murders, disappearances, and torture are a common part of life. In spite of its generality, on this level terror mainly affects those who are interested in politics or ideas.

-Level 5: Terror has expanded to the entire population. The leaders of these societies place no limits on the means or thoroughness by which they pursue personal or ideological goals.

Source: The Political Terror Scale website, <http://www.politicalterror scale.org/>

The PTS has shown a “good degree of inter-coder reliability and robustness across the different studies that have deployed it for systematic comparative analysis” and is the dominant and most reliable standard-based measure (Landman 2006). The results from using the US State Department measure were very similar to the results using the Amnesty International score, as both scores are closely related to each other. However, using the latter

one we could include more countries in the test. The CIRI index is provided by the Cingranelli and Richards Human Rights Database (CIRI data, Cingranelli and Richards 1999). It is a nine-point additive scale derived from a Mokken scale analysis of observations on torture, extrajudicial killings, political imprisonment and disappearances. PIR ranges from zero (no respect from any of the four physical integrity rights) to eight (full respect for the four physical integrity rights). We use both scales because it allows us two estimating techniques—simple OLS on the 9-point CIRI scale and ordered probit on the PTS.

We control for several relevant factors that have been shown by previous research to have an impact on government respect for human rights: the level of formal democracy, economic situation, population size, ethnic fractionalization, civil war, oil wealth, legal tradition system and the time trend. Democracy is a robust predictor of lower state repression (Davenport 1995, Davenport 1999, Davenport and Armstrong 2004, Fein 1995, Henderson 1991, Mitchell and McCormick 1988, Regan and Henderson 2002, Poe and Tate 1994, Poe, Tate and Keith 1999, Zanger 2000). The control used here for regime type is defined as a dummy variable (Polity 2) taking the value 1 if the Polity IV score is above 6 and 0 if below (Jagers and Gurr 1995; de Soysa and Nordås 2007).

The economic situation of the state is a crucial control variable when assessing the effects of ICTs on repression because the penetration of the ICTs is correlated with GDP per capita. Economic development has been associated with less human rights abuses (Strouse and Claude 1976; Mitchell and McCormick 1988; Boswell and Dixon 1990; Poe and Tate 1994; Davenport 1995; Meyer 1996; Poe, Tate and Keith 1999; Carey 2004). Countries with economies characterized by scarcity are more likely to repress domestic threats (Poe et al. 1999). Richer countries experience less repression because the population is more content, therefore, there is less mobilization (Henderson 1991), they are able to organise alternative

channels for dealing with dissidents (Fearon and Laitin 2003) and there is a rise in the opportunity cost of participating in threatening activities (Collier and Hoeffler 2004). To capture a country's economic situation we will use logged Gross Domestic Product (GDP) per capita and annual growth rate of GDP per capita from the World Bank's World Development Indicators (World Bank 2007).

The greater a country's population, the more likely the government is to abuse personal integrity rights, that is, countries with large populations are more repressive than countries with small populations (Poe and Tate 1994, Poe 2004; Landman 2005). Large populations might imply a greater number of potential dissenters and larger geographical areas which undermine state control. The presence of various forms of threat and dissent increases the repression of human rights (Ziegenhagen, 1986; Boswell and Dixon 1990; Davis and Ward 1990; Poe and Tate 1994; Davenport 1995; Poe et al. 1999). A large population can also detrimentally affect respect for human rights in a limited available resources environment. The total population (logged) from the WDI data (World Bank 2007).

The previous research on how ethnic fractionalization affects repression is mixed (Walker and Poe 2002; Lee, Lindström, Moore and Turan 2004). However, some scholars argue that ethnic fractionalization is related to higher levels of human rights violations (Lindström 1996; Lee 2001; Turan 2002). Ethnic heterogeneity makes governance difficult (Alesina, Baqir, and Easterly 1999; Easterly 2001) and countries with ethnic divisions are more likely to experience higher mobilization of dissent than countries without ethnic divisions. These mobilizations will be interpreted as a threat by the state. Ethnic heterogeneity will be included as a control (Fearon and Laitin 2003).

Some studies have found that wealth in natural resources is a problem for governance and peace (Auty 2001; de Soysa 2002; de Soysa and Nordås 2007). Oil-rich countries are prone to violate human rights and be undemocratic (de Soysa and Binningsbo 2008; Ross 2001). A dummy variable will be used, giving the value 1 if oil exports are greater than one third of total export revenue and 0 if not.

Civil war increases human rights violations. In a context of a civil war, governments and populations tend to respond to security threats by restricting and expanding the judicial power of the executive (Henderson 1991; Mitchell and McCormick 1988). Here the Uppsala/PRIO dataset that includes all the conflicts with at least 25 battle-related deaths is used (Gleditsch, Wallensteen, Errikson, Sollenberg, and Strand 2002), and the number of years of peace since the last civil conflict will be computed.

Several studies find that the legal heritage of a country matters. A British legal tradition has independent bureaucracies and court systems which limit the potential arbitrary acts by governments (Poe et al. 1999). Poe et al (1999) also find that socialist governments show greater respect for human rights (Poe et al. 1999). We use the legal traditions measuring British and socialist legal systems taken from La Porta et al. (1998). Finally, time trends in the data have to be controlled, using years as dummy variables, because they can be affected by the increased sophistication of the technologies of detection over time or by other unobserved factors, such as the end of the Cold War, or global policy changes that may affect human rights through the dynamics of diffusion and increased activism (Keck and Sikkink 1998; Simmons and Elkins 2004, Soysa and Nordås 2007). Importantly, also, access to ICTs and human rights may trend upwards over time.

We follow the conservative strategy of testing the models using both measures of human rights (de Soysa and Nordås 2007). PTS is estimated using the Ordered Probit analysis because the cut-off points of this five-point scale are easier to interpret. PIR is estimated using an OLS regression with Newey-West standard errors that are robust to heteroscedasticity and serial correlation (Newey and West 1987). Since our time period is relatively short, the alternative Panel Corrected Standard Error method is less appropriate, but our basic results uphold when we use PCSEs.

RESULTS

The results are interesting. As table 1 shows, the logged value of TVs per 100 people is negative and statistically significant (column 1 & 2) on human rights and positive and very close to significance ($z=1.6$) for the level of state repression as measured by the Political Terror Scale. (the two scales measure rights and repression respectively, hence the opposite signs).

Table 1 About here

These results are net of (controlling for) level of income (development), country size (population), level of democracy, ongoing conflict, oil export dependence, British and socialist legal systems, ethnic fractionalization, and a time trend. In order to assess the substantive impact of this variable on human rights, we hold all variables at their mean values and compute a baseline predicted probability. Next, we estimate a new prediction at the TV values one standard deviation above the mean value holding all the other controls at their means to see the change in the baseline prediction. The baseline prediction is reduced by roughly 3%, whereas doing the same exercise with per capita income increased the baseline

prediction by 12.4%, roughly 4 times the impact. Thus, while there is a statistically significant negative effect of access to TVs on human rights, the effect is relatively small substantively. Given that the model also controls for wealth and other modernization factors, such as democracy, access to TV as a medium of information does not seem to enhance human rights.

In columns 3 & 4 in table 1 Internet subscriptions per 100 people is positively related with rights and negatively related with political terror, results that are statistically highly significant. These results become even stronger when we add the proxy for old technology, TVs per 100 inhabitants, back in the model (columns 5 & 6). To estimate the substantive impact of internet access, we again compute a baseline prediction with all variables at their mean values, followed by a re-estimation of the predicted probability after raising our variables of interest by a standard deviation above the mean value. The baseline prediction changes by roughly 4% when internet access is raised by a standard deviation, whereas the same exercise using income per capita changes the baseline by roughly 10%, which suggests that the net effect of internet access is half that of income. Considering that internet access and income generally reinforce each other, the indirect effects of internet access is potentially large. However, as seen in column 5 & 6, the new technology of access to information is clearly better for reducing violations of human rights than the older technology associated with access to TV.

The results show clearly that the relative effects of internet access are positive and statistically highly significantly related to human rights, whereas TV access is negative and statistically highly significant. Thus, controlling for a host of important factors, TV access has worked to lower rights while internet access is associated with higher respect for human rights. The question remains, however, of endogeneity. Perhaps it is the better governments that have

given more internet access to its population? But does this make sense? Why would bad governments give more access to TV? One answer is that they wish to control people through TV! This proves our point—internet is harder to control, which means that people are qualitatively better off due to the nature of the new technologies—ICT are less likely to allow governments a ‘captive audience’ unlike the function TV serves. While the correlation between the two measures is high, we do not detect any multicollinearity in our models.

A very similar effect of the power of the new technology can be seen by estimating the relative effects of the means of communication in terms of telephone main lines per 100 (old technology) versus cell phones per 100 persons as well as access to the internet (see Table 2).

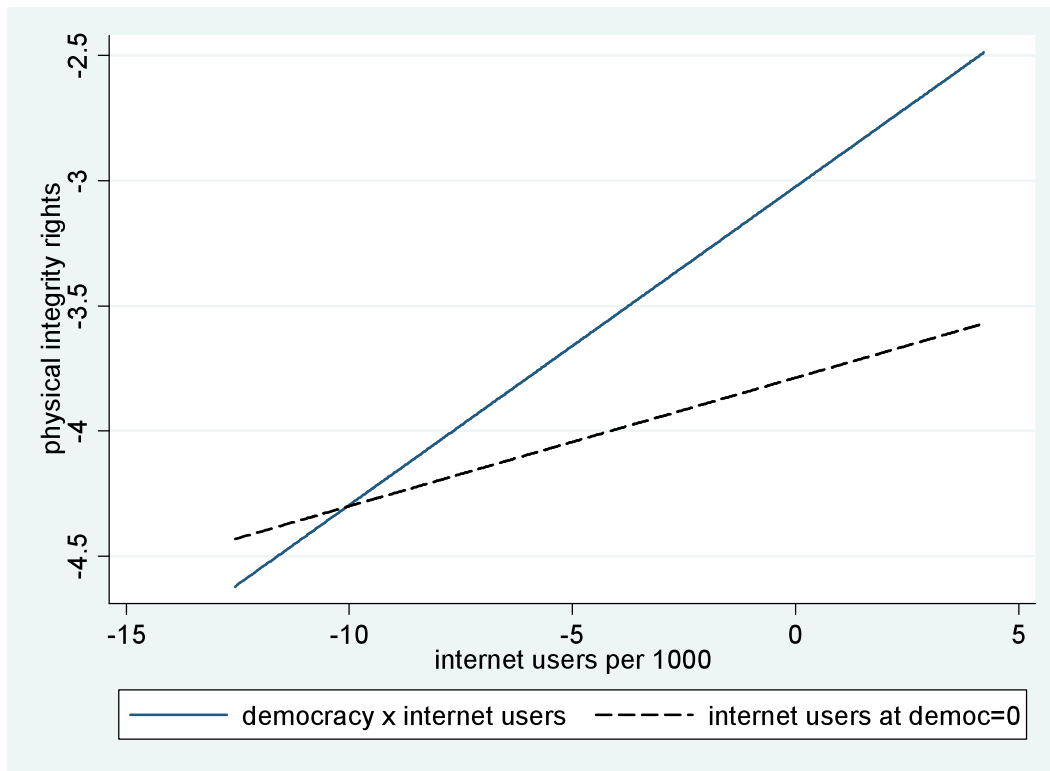
Table 2 ABOUT HERE

As seen there, for roughly 100 countries for which we have data on both telephone mainline access and cellular phone access for the years 1996 to 2005, the old technology of phone access net of cellular-phone access is decidedly negatively related to human rights. Cellular phone access is not statistically significant. In fact, estimating only telephone mainline access controlling for all the other factors as above for the entire 1981–2005 period yields a negative and significant effect (results not shown). In columns 3 & 4, when we enter internet access, the effect is positive and significant on rights and negative and significant on political terror. Interestingly, when the new technology of internet is introduced, cellphone access becomes detrimental to human rights, although the effect seems slight. In this case too, therefore, the new communications technology outperforms the old telephone technology.

To assess the robustness of the basic findings and dispel issues related to endogeneity; i.e. it might be the good governments that allow greater access to internet. We test several other variables in alternative models. First, we enter the CIRI dataset's empowerment rights index, which is moderately correlated with the physical integrity rights measure ($r = 0.54$). Empowerment rights are a measure of how well people enjoy freedom of religion, freedom of movement (foreign and domestic), workers rights, and electoral self-determination. Adding this variable to the model made little difference to the results reported in table 1. We also added 'control of corruption' taken from the International Country Risk Guide (ICRG), and the results remained unchanged. The effects of internet might also be capturing the extent of urbanization, rather than a technology effect. Entering the share of the population urban had little effect on the results.

To further assess the independent effect of the new technology, we test a conditional effect of it with regime type. Remember, the higher repression of rights may be a higher dissent effect rather than a qualitatively better citizen-government state of affairs. Consider that democracies naturally have higher levels of human rights compared with autocracies (see tables above). Thus, is there some qualitatively different way in which the access to ICTs conditions the effects of autocratic regimes on human rights, a rather clever way in which to assess the effects of internet access since we would not expect regime type (autocracies) to affect human rights positively (Nooruddin and Simmons 2006). We enter an interactive term of internet access with our democracy dummy (regime type) in the basic model.

Figure 1. Conditional plot of regime type and internet access on human rights



As figure 1 shows, internet access conditions autocracy in ways that raise autocratic effects on human rights, suggesting that internet access significantly conditions the behaviour of political regimes—an effect that would not be apparent if ICTs simply did not matter, and only regime type mattered! This is further evidence that internet access may have a qualitatively favourable impact on human rights.

CONCLUSIONS

The aim of this paper was to assess if the current wave of globalization marked most significantly by the spread of new communication technology would affect human rights within countries as some fear. We find some clear evidence suggesting that the effects of internet access are positive, net of several important control variables, such as income and regime type. The older information and communication technology, such as access to TV and mainline telephones, is negative and statistically highly significant. This means that, after

controlling for a host of important factors, the old technology lowers rights while the new technology increases respect for human rights. Since, the incidence of repression does not allow us to identify whether or not it occurs due to higher dissidence (mobilization) or whether the technology ‘pacifies’ people (demobilizes populations), we examined conditional effects of new technology with autocracies, which are known to lower rights. We find that the effects of autocracies on human rights are leveraged upwards when internet access is higher, suggesting an effect of ICTs on human rights that is not easily ignorable. We find support for arguments that suggest that the new technologies perform better than the old ones because access to tools such as the internet empower civil society over states, raising the costs for states to repress rather than the option of reform. The new technologies allow fast, real-time access to instances of human rights abuse and responses to such abuse. These factors constrain states. This is a positive finding for policy because donors and other agencies can encourage greater access to new technologies and the internet for reducing human rights violations.

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Table 1.

OLS and Oprobit regressions of Television access and Internet access on Human Rights and State Terror

	(1)Newey	(2)Oprobit	(3)Newey	(4)Oprobit	(5)Newey	(6)Oprobit
	CIRI	PTS	CIRI	PTS	CIRI	PTS
Ln tv per 1000	-0.10**	0.09			-0.25***	0.12
	(2.21)	(1.54)			(4.22)	(1.58)
Ln Internet users			0.07**	-0.13***	0.11***	-0.15***
			(2.26)	(3.27)	(3.40)	(3.48)
Ln gdp/pc	0.62***	-0.48***	0.48***	-0.24***	0.64***	-0.31***
	(9.22)	(4.36)	(6.96)	(2.60)	(7.34)	(2.79)
Ln population	-0.41***	0.20***	-0.48***	0.25***	-0.45***	0.24***
	(15.97)	(4.20)	(17.17)	(4.77)	(14.30)	(4.42)
Growth/pc	0.01	-0.01	-0.00	-0.00	-0.01	-0.00
	(0.89)	(1.24)	(0.59)	(0.76)	(1.00)	(0.47)
Democracy	0.98***	-0.52***	0.67***	-0.25**	0.67***	-0.26**
	(11.18)	(4.67)	(6.89)	(2.18)	(6.56)	(2.27)
Civil war	-2.06***	1.22***	-2.04***	1.35***	-2.08***	1.37***
	(16.89)	(7.94)	(15.85)	(7.53)	(15.23)	(7.16)
Civil peace yrs	0.02***	-0.01***	0.02***	-0.01**	0.02***	-0.01**
	(8.94)	(2.75)	(8.02)	(2.43)	(7.51)	(2.29)
Ethfraction	0.91***	-0.80**	1.06***	-0.92**	0.89***	-0.79**
	(5.21)	(2.41)	(5.64)	(2.55)	(4.63)	(2.19)
Oil exporter	-0.40***	0.25*	-0.44***	0.28**	-0.37***	0.24*
	(3.71)	(1.84)	(3.45)	(2.08)	(2.71)	(1.77)
British legal sys.	0.15*	-0.21	0.02	0.02	-0.01	0.02
	(1.81)	(1.39)	(0.26)	(0.13)	(0.11)	(0.12)
Socialist legal sys.	0.46***	-0.73***	0.43***	-0.61***	0.73***	-0.78***
	(3.47)	(3.63)	(3.69)	(3.49)	(5.66)	(4.16)
Constant	5.24***		7.27***		6.01***	
	(7.23)		(10.25)		(7.04)	
N	2703	2335	1878	1552	1692	1452
Countries	132	130	132	130	132	130
Time period	1981-2005	1981-2004	1990-2005	1990-2004	1990-2005	1990-2004

Newey-West t-statistics in parentheses when estimating OLS

Huber-White robust standard errors estimated when using ordered probit

* significant at 10%; ** significant at 5%; *** significant at 1%

Year dummies computed in all tests (not shown)

Table 2.

OLS and Oprobit regressions of Telephone Mainlines, Cellular Phone Access and Internet access on Human Rights and State Terror

	(1)	(2)	(3)	(4)
	CIRI	PTS	CIRI	PTS
Ln telephone lines	-0.21**	0.03	-0.38***	0.24**
	(2.34)	(0.22)	(3.96)	(2.15)
Ln mobile phones	-0.07	0.17	-0.15	0.30**
	(0.81)	(1.53)	(1.57)	(2.29)
Ln Internet users			0.28***	-0.36***
			(3.15)	(3.46)
Ln gdp/pc	0.91***	-0.53***	0.76***	-0.34
	(7.14)	(2.92)	(5.38)	(1.63)
Ln population	-0.48***	0.22***	-0.47***	0.20***
	(10.75)	(3.10)	(10.79)	(2.90)
Growth/pc	-0.03	-0.05***	-0.02	-0.06***
	(1.58)	(2.92)	(1.31)	(3.16)
Democracy	0.80***	-0.44*	0.76***	-0.37
	(5.57)	(1.78)	(5.40)	(1.51)
Civil war	-1.79***	1.62***	-1.77***	1.61***
	(7.39)	(5.42)	(7.53)	(5.47)
Civil peace yrs	0.02***	-0.01**	0.01***	-0.01**
	(3.94)	(2.01)	(3.77)	(2.01)
Ethfraction	0.42	-0.71	0.24	-0.48
	(1.47)	(1.57)	(0.86)	(1.05)
Oil exporter	-0.31	0.15	-0.19	-0.02
	(1.54)	(0.61)	(0.94)	(0.08)
British legal sys.	-0.00	0.33	-0.03	0.38
	(0.03)	(1.42)	(0.18)	(1.62)
Socialist legal sys.	0.73***	-0.06	0.83***	-0.25
	(4.32)	(0.23)	(5.17)	(0.99)
Constant	5.40***		8.33***	
	(5.13)		(5.69)	
Observations	613	465	613	465
Countries	100	96	100	96
Time period	1995-2005	1995-2004	1995-2005	1995-2004

Newey-West t-statistics in parentheses when OLS estimates
 Huber-White robust standard errors when ordered probit estimates
 significant at 10%; ** significant at 5%; *** significant at 1%
 year dummies computed in all tests (not shown)

Table 3. Regression of conditional effect of democracy and ICTs on human rights

Regression with Newey-West standard errors
maximum lag: 1

Number of obs = 1878
F(27, 1850) = 96.40
Prob > F = 0.0000

physint	Newey-West		t	P> t	[95% Conf. Interval]	
	Coef.	Std. Err.				
democ_inte~t	.0758515	.0246346	3.08	0.002	.027537	.124166
lnintinter~t	.0512946	.0306248	1.67	0.094	-.0087681	.1113574
lngdppc	.4436135	.0701043	6.33	0.000	.3061217	.5811054
lnpop	-.4867837	.0274862	-17.71	0.000	-.540691	-.4328763
growthpc	-.0028128	.0075914	-0.37	0.711	-.0177014	.0120757
democ_dummy	.7628621	.0971375	7.85	0.000	.5723515	.9533727
civilwar	-2.063678	.1293938	-15.95	0.000	-2.317451	-1.809905
civpeaceyrs	.0197245	.0026748	7.37	0.000	.0144784	.0249705
iipethfrac	1.018712	.1886428	5.40	0.000	.6487373	1.388687
iipoil	-.40928	.124415	-3.29	0.001	-.6532885	-.1652715
iiplegbrit	.0446823	.0909292	0.49	0.623	-.1336523	.2230169
iiplegsoc	.4355441	.1152623	3.78	0.000	.2094863	.6616019
_Year_1990	2.112611	.385302	5.48	0.000	1.356938	2.868283
_Year_1991	1.081881	.2887788	3.75	0.000	.5155147	1.648248
_Year_1992	1.152939	.2528798	4.56	0.000	.6569794	1.648899
_Year_1993	.9924722	.2502739	3.97	0.000	.5016232	1.483321
_Year_1994	.9152446	.2360025	3.88	0.000	.4523853	1.378104
_Year_1995	.7468519	.2183527	3.42	0.001	.3186082	1.175096
_Year_1996	.8373852	.202534	4.13	0.000	.440166	1.234604
_Year_1997	.6062123	.1892235	3.20	0.001	.2350982	.9773264
_Year_1998	.6033981	.1862582	3.24	0.001	.2380997	.9686965
_Year_1999	.4246838	.1614326	2.63	0.009	.1080745	.741293
_Year_2000	.1274106	.1637633	0.78	0.437	-.1937696	.4485909
_Year_2001	.472139	.1512737	3.12	0.002	.1754539	.768824
_Year_2002	.521412	.1583709	3.29	0.001	.2108074	.8320165
_Year_2003	.1095659	.1491401	0.73	0.463	-.1829346	.4020665
_Year_2004	.0899807	.124611	0.72	0.470	-.1544124	.3343737
_cons	7.586448	.708862	10.70	0.000	6.196194	8.976702