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Item Type	Book
Authors	Bach, Jonathan;Stark, David
Publisher	United Nations Research Institute for Social Development (UNRISD)
Rights	With permission of the license/copyright holder
Download date	2026-07-15 04:30:38
Link to Item	http://hdl.handle.net/20.500.12424/178913

Technology and Transformation

Facilitating Knowledge Networks in Eastern Europe

Jonathan Bach and David Stark



This United Nations Research Institute for Social Development (UNRISD) Programme Paper has been produced with the support of UNRISD core funds. UNRISD thanks the governments of Denmark, Finland, Mexico, the Netherlands, Norway, Sweden, Switzerland and the United Kingdom for this funding.

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ISSN 1020-8216

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Acronyms

C3	Center for Culture and Communication
C@MP	Center for Advanced Media—Prague
KOR	Komitet Obrony Robotnikow (Workers' Defense Committee), Poland
NGO	non-governmental organization
OECD	Organisation for Economic Co-operation and Development
OSI	Open Society Institute
USAID	United States Agency for International Development

Summary/Résumé/Resumen

Summary

This paper examines the co-evolution of interactive technology and non-governmental organizations (NGOs) in Eastern Europe. It addresses, on the one hand, the emergence of NGOs as actors who exhibit new organizational topographies and, on the other, the emergence of the Internet and related interactive technologies that not only provide a new medium of representation in a virtual public sphere but whose adoption makes possible fundamental changes in the character of organization.

Non-governmental voluntary organizations play a key role in strengthening civil society in Eastern Europe. The extremely rapid growth of the voluntary sector since 1989 has coincided with the digital revolution, and today both NGOs and the Internet are experiencing exponential growth throughout the region. In little more than a decade, the technological framework in which voluntary associations are operating has gone from the limitations of a pre-Gutenberg setting to the opportunities of advanced communication technologies. Jonathan Bach and David Stark explore how organizations of civil society can be a source of organizational and technological innovation necessary for their societies' continuous adaptability in a fast-changing global economy. They argue that NGOs can enhance their use of new technologies to go beyond their existing roles as safety nets (mitigating the social problems of emerging market economies) and as safety valves (giving voice to underrepresented social groups in the newly competitive polities). In doing so, NGOs may function as social entrepreneurs that explore new organizational forms, and thus as sources of societal innovation.

If interactive technology is altering the organizational form of NGOs, however, this poses a whole new set of problems: can new hybrids remain within the accepted definition of voluntary organizations? What new accountability problems might ultimately compromise their autonomy or flexibility? What impact might such changes have on their ability to act as socially transformative organizations? In this paper, Bach and Stark focus on three NGOs in Eastern Europe that are co-evolving along with interactive technology: the Center for Advanced Media—Prague, in the Czech Republic (C@MP); the Center for Culture and Communication (C3) in Hungary; and Klon/Jawor in Poland. They follow their development as organizations that facilitate collaboration, develop new entrepreneurial programmes, create novel organizational forms such as the virtual meta-NGO, and transform technology and social relations through their practices. As NGOs become sites of competing and co-existing evaluative principles, they are increasingly caught between the value systems of business (efficiency, solvency) and social mission (adherence to principles, ideological agendas). The authors see a tension between successfully exploiting these contradictions and the challenges raised by the proliferation of performance criteria, where the danger is that actors who are accountable according to many principles become accountable to none.

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Résumé

Les auteurs se penchent ici sur l'évolution parallèle des technologies interactives et des organisations non gouvernementales (ONG) en Europe de l'Est. Ils s'intéressent à l'émergence, d'une part, des ONG comme acteurs présentant de nouvelles topographies organisationnelles et, de l'autre, à l'émergence de l'Internet et des technologies interactives connexes qui non seulement apportent de nouvelles modalités de représentation dans la sphère publique virtuelle mais dont l'adoption permet aussi de modifier radicalement le caractère de l'organisation.

Les organisations bénévoles non gouvernementales jouent un rôle capital dans le renforcement de la société civile en Europe de l'Est. La croissance extrêmement rapide du secteur bénévole depuis 1989 a coïncidé avec la révolution numérique et, aujourd'hui, tant les ONG que l'Internet connaissent une croissance exponentielle dans toute la région. En un peu plus de dix ans, le cadre technologique dans lequel opèrent les associations bénévoles est passé de l'ère pré-Gutenberg, avec toutes ses limitations, aux technologies de communication de pointe, avec toutes les possibilités qu'elles offrent. En quoi les organisations de la société civile peuvent-elles être génératrices des innovations organisationnelles et technologiques dont a besoin leur société pour s'adapter continuellement à une économie mondiale en pleine mutation? Tel est le sujet qu'explorent Jonathan Bach et David Stark. Ils font valoir que les ONG peuvent développer leur emploi des nouvelles technologies pour sortir de leurs rôles actuels de filets de sécurité (atténuant les problèmes sociaux liés à la naissance de l'économie de marché) et de soupapes de sécurité (donnant une voix aux catégories sociales sous-représentées dans une vie politique où la compétition n'a fait que récemment son apparition). Les ONG peuvent, ce faisant, fonctionner à la manière d'entrepreneurs sociaux explorant de nouvelles formes d'organisation et être ainsi génératrices d'innovation sociale.

Pourtant, si les technologies interactives sont en train de modifier la forme organisationnelle des ONG, cela pose une série de problèmes totalement nouveaux: les hybrides ainsi créés peuvent-ils encore cadrer avec la définition reconnue des organisations bénévoles? Quels nouveaux problèmes de responsabilité pourraient finalement compromettre leur autonomie ou leur flexibilité? Quel impact ces changements pourraient-ils avoir sur leur capacité d'agir en vecteurs du changement social? Dans cette étude, les auteurs concentrent leur attention sur trois ONG d'Europe de l'Est qui évoluent de concert avec des technologies interactives: le Centre des médias de pointe à Prague, République tchèque (C@MP), le Centre Culture et communication (C3) en Hongrie et Klon/Jawor en Pologne. Ils suivent leur développement en tant qu'organisations favorisant la collaboration, mettant au point de nouveaux programmes entrepreneuriaux, créant des formes d'organisation originales telles que la méta-ONG virtuelle, d'organisations qui, par leurs pratiques, transforment les technologies et les rapports sociaux. Comme, à l'intérieur des ONG, coexistent et rivalisent maintenant différents principes d'évaluation, elles sont prises de plus en plus entre les systèmes de valeurs du monde des

affaires (efficacité, solvabilité) et leur mission sociale (adhésion aux principes, programmes idéologiques). Les auteurs voient une tension entre l'heureuse exploitation de ces contradictions et les défis que pose la prolifération des critères de performance, où les acteurs qui doivent répondre du respect d'un grand nombre de principes risquent de n'en plus satisfaire aucun.

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Resumen

En este documento se analiza la evolución conjunta de la tecnología interactiva y las organizaciones no gubernamentales (ONG) en Europa del Este. Por una parte, se aborda el surgimiento de las ONG como actores que muestran nuevas estructuras organizativas y, por otra, la aparición de Internet y de tecnologías interactivas conexas que no solamente proporcionan un nuevo medio de representación en una esfera pública virtual, sino cuya adopción también permite la introducción de cambios fundamentales en el sistema organizativo.

Las organizaciones voluntarias no gubernamentales desempeñan un papel clave en el fortalecimiento de la sociedad civil en Europa del Este. El vertiginoso crecimiento experimentado por el sector voluntario a partir de 1989 coincidió con la revolución digital y, actualmente, tanto las ONG como la Internet están experimentando un crecimiento exponencial en toda la región. En poco más de una década, el marco tecnológico en que las asociaciones voluntarias despliegan su actividad y que antes estaba sujeto a las limitaciones propias del entorno anterior a Gutenberg, actualmente aprovecha las oportunidades que brindan las tecnologías avanzadas de la comunicación. Jonathan Bach y David Stark exploran el modo en que las organizaciones de la sociedad civil pueden ser fuente de innovaciones organizativas y tecnológicas necesarias para la adaptabilidad continua de sus sociedades en una economía mundial que evoluciona con gran rapidez. Aseguran que las ONG pueden hacer mayor uso de las nuevas tecnologías para ir más allá de sus funciones actuales como redes de seguridad (mitigando los problemas sociales de economías de mercado emergentes) y como válvulas de escape (interviniendo en representación de grupos sociales insuficientemente representados en las nuevas políticas competitivas). De este modo, las ONG pueden actuar como empresas sociales que exploran nuevas formas de organización y, por consiguiente, como fuentes de innovación societal.

Si bien la tecnología interactiva está cambiando la estructura organizativa de las ONG, esto plantea, no obstante, nuevos problemas. Así pues, ¿puede seguir considerándose a las organizaciones híbridas como organizaciones voluntarias? ¿Qué nuevos problemas relativos a la rendición de cuentas pueden poner en peligro su autonomía o flexibilidad? ¿Qué efectos

pueden tener tales cambios en su capacidad de actuar como organizaciones socialmente transformativas? En este documento, Bach y Stark se centran en tres ONG con sede en Europa del Este que están evolucionando al mismo tiempo que la tecnología interactiva: el Centro de Medios de Comunicación Avanzados de Praga (República Checa), (C@MP); el Centro de Cultura y Comunicación (C3) en Hungría; y Klon/Jawor en Polonia. Se desarrollan como organizaciones que facilitan la colaboración, elaboran nuevos programas empresariales, crean nuevas estructuras organizativas tales como las meta ONG virtuales, y transforman la tecnología y las relaciones sociales a través de sus prácticas. A medida que las ONG se convierten en centros de principios evaluativos concurrentes y coexistentes, cada vez se hallan más atrapadas entre los sistemas de valores de las empresas (eficiencia, solvencia) y la misión social (adherencia a principios, programas ideológicos). Los autores observan una tensión existente entre la explotación satisfactoria de estas contradicciones y los desafíos que plantea la proliferación de criterios sobre los resultados, donde el peligro radica en que los actores que debían rendir cuentas de sus acciones, según numerosos principios, de pronto no deban rendir cuentas a nadie.

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Introduction

New digital, interactive technologies are both heralded and maligned as evidence of a world increasingly structured by technology. This is especially the case since digital technologies figure prominently in the space-time compression at the core of globalization. Discussions about controversial issues regarding digital technology—from how to provide equal access to what new laws should govern the virtual world—are most always inclined to start from normative premises about technological properties. Yet while assumptions about technology's social effects provide good rhetorical ammunition for debates, they tend in most cases to outstrip our knowledge of how technology is actually used (O'Mahony and Barley 1999). The social practices that evolve around the use of a technology tell us more about its effect than assumptions based on technological properties alone (Bijker 1997; Giddens 1984). To understand the axial transformations implicit in globalization, including the key shift away from mass communication and production toward interactive media and network modes of organizing, we need to explore the ways in which technology and society co-evolve.

This paper examines the co-evolution of interactive technology and non-governmental organizations (NGOs) in Eastern Europe. In the decade following the revolutions of 1989, the countries of Eastern and Central Europe successfully launched structural reforms that consolidated a transition from socialism; in the present decade, the region faces an increasing imperative to promote innovation in order to move toward a more integrated role in Europe and the global economy. Poland, the Czech Republic, Slovakia and Hungary have successfully achieved the stable minimum structure of modern society, with private firms operating within institutionalized markets and political parties competing within institutionalized democracies (Stark 1996; Agh 1998; Lavigne 1999). Yet the region still strives for a vibrant civil society, without which this twinned transformation cannot create deep-seated structural improvements. Partially as a result of such underdevelopment, these economies remain hungry for investment and their business culture exhibits low levels of innovation. The accomplishments of the transition are thus tempered by uncertainty as increased social and economic tensions follow in the wake of socialism and governments navigate the demands of the new global information economy (Iatridis 2000; Zwass 1999). These developments make a strong civil society all the more imperative and its mechanisms more complex.

The task of strengthening civil society is widely entrusted to the realm of NGOs, which have grown from at best a few hundred per country in 1989 to tens of thousands across the region today. Spurred by a combination of real need, normative motivations and Western funds, NGOs engaging in advocacy and service provision grew exponentially in the 1990s. These otherwise diverse organizations share the common denominators of being founded independent of state control, having a formal structure and being motivated by a normative value rather than profit (see Osborne 1998:16; Salamon and Anheier 1997).¹ The exponential

¹ Our working definition of NGOs encompasses advocacy or service organizations whose self-understanding includes a commitment to democratic values and progressive change (however they see fit to interpret this). These are the types of NGOs that Western foundations and governments encouraged during the early years of the transition in the hope that their presence would help create the public trust and social networks that had frayed to the breaking point under the previous regimes. This differs from the social capital approach (see Putnam 2000), where any civic group

growth of the voluntary sector since 1989 coincides with the digital revolution. Today, both NGOs and the Internet are experiencing exponential growth throughout the region. In Hungary, for example, the number of NGOs jumped to about 15,000 in the first year after the revolution and now stands at over 50,000, while at the same time, by conservative estimates, the number of people online doubles every year and the number of Web sites doubles every six months (Kuti 1996, 2001). In the time span of little more than a decade, the technological framework in which voluntary associations are operating has gone from the limitations of a pre-Gutenberg setting to the opportunities of advanced communication technologies.

We emphatically do not presume that these technologies will be either magically liberating or harbingers of Orwellian control. Rather, we ask how the shift from mass communication to interactive media affects the practices of NGOs as an emerging organizational form in the region. We are equally well aware that one cannot conflate civil society with the presence of NGOs (Hann and Dunn 1996). Yet NGOs are now an inescapable factor in the post-socialist landscape, and they are expressing increasing interest in the potential of digital technologies to promote change, address social issues and streamline their operations (Lewis 1998; Hamelink 1997; White 1997). This creates an extraordinary laboratory for exploring the co-evolution of organizational forms and interactive technology.

There is, however, little empirical work on NGOs' use of new technologies. Can the capacities of the Internet to link people and resources, to search formal and informal archives of information, and to allow people to interact both in real time and at a time of their own choosing enhance NGOs' ability to mobilize and effect social change (compare with Gurstein 2000; Schuler 1996)? We know from studies of firms that the introduction of new technologies can substantially affect an organization's internal and external relations (Orlikowski 1995). Could NGOs' structures come to reflect the collaborative and less hierarchical organizational forms observed in firms that have introduced information technology and who operate under conditions of high uncertainty (Kahn 2000; Girard and Stark 2002)? If yes, then the use of interactive technology and related organizational changes should allow NGOs to more flexibly address the competing demands placed upon them. However, if in the process NGOs are being transformed into new kinds of hybrids that coincide uneasily with conventional images of non-profit, voluntary organizations, might this not enhance the risk that NGOs will encounter problems of accountability that ultimately compromise rather than enhance their flexibility? What impact might such changes have on their ability to act as socially transformative organizations as globalization proceeds apace?

regardless of normative motivation can become a vehicle for the creation of bonds that strengthen civil society. This arguably could allow undemocratic groups such as xenophobic right-wing organizations to be discussed within the discursive realm of NGOs. This is a complex problem, but at the risk of oversimplification, our definition of NGOs explicitly excludes extremist groups. Although such groups also exhibit entrepreneurial characteristics and innovative uses of technology, they fall outside the purview of our study of civil society NGOs.

NGOs as Innovators and Social Entrepreneurs

NGOs are potential innovators that can play the role of social entrepreneur. The literature on civil society often interprets NGOs either romantically as the institutionalized “conscience” of society, or cynically as vessels for power struggles between class interests. The former is problematic because it implies that NGOs somehow guide society back to an ideal true self. This is a fiction, for the consequences of social change are not a return to an earlier state but a move toward new, uncertain directions. The latter view is equally problematic since it empties NGOs of agency and reduces them to pawns of external interests.

In both advanced and consolidating democracies, NGOs have developed into major societal actors primarily because they meet real political and material needs: they serve as a source of political legitimacy for the system by providing voice beyond electoral participation. Since they allow dissent to find form and content rather than fester unproductively, NGOs can be considered a type of “safety valve” essential to the functioning of a democracy. Materially, NGOs provide services that seek to mitigate the effects of social inequalities that arise in the new market economies, acting as a “safety net”. Both these roles serve to stabilize and ideally balance the inherent tension between self-interest and the common good within a democratic free-market system.

In the above roles as safety nets and safety valves, NGOs are systemically desirable for democracies; but NGOs are not (or should not be) safe for the system in the sense of cementing the status quo. On the contrary, NGOs are rooted in a normative commitment to transforming the system, so that it becomes more responsive to the diverse and changing needs of citizens. The common perception of NGOs as oppositional to government and industry is often correct, for the bureaucratic machinery of the state and entrenched commercial interests rarely welcome criticism. Yet NGOs increasingly achieve change through partnership with government and the private sector. NGOs are therefore paradoxical creatures: by promoting change they both legitimize and challenge democratic society.

Simultaneously legitimizing and challenging democratic society is the core tension that NGOs embody in democracies. It is exacerbated by diverse pressures exerted on NGOs by constituents, donors, governments, and a broad array of amicable and hostile forces (Edwards and Hulme 1996). These diverse pressures create different ways in which an NGO legitimizes its self-worth: an organization must develop different strategies for justifying its existence vis à vis a donor, a client or an opponent; yet all of these must nonetheless be employed simultaneously. Because NGOs exist in an environment rife with uncertainty, there is a tendency for NGOs to treat potentially ambiguous situations (such as having to employ different forms of justification for different audiences) as something to be contained or avoided. The most successful strategies, however, require exploiting the ensuing ambiguity. In exploiting ambiguity, actors attempt to hold a resource that can be justified or assessed by more than one standard of measure (as, for example, the curious scene in Michael Moore’s documentary film, *Roger and Me*, in which a rabbit breeder’s roadside stand advertises “Pets and Meat”.) NGOs

that seek to exploit ambiguity through employing different standards of measure mirror characteristics of social entrepreneurs (Stark 2001).

Using the word entrepreneur and NGO in the same sentence may at first glance seem contrary to the spirit of voluntary organizations, but at closer look the best NGOs are adept entrepreneurs. It is a mistake to consign entrepreneurial skill to the realm of the private sector, for the notion of entrepreneurship reflects an organization's ability to exploit multiple regimes of worth and not primarily the ability to make a profit (Stark 2000; Spinosa et al. 1997). The "original" NGOs in Eastern Europe – the dissident groups of the socialist era – were in a sense very entrepreneurial. The scarce dissident NGOs under the socialist regimes in Eastern Europe were true social innovators, pushing the limits of the system, devising ingenious methods for circumventing obstacles and proposing daring ways of thinking. A Polish editor once explained to us how his group bartered Italian wine and Russian watches in a complicated transaction to get paper for an economics journal. This ability to exploit ambiguities is an entrepreneurial feature. But being an entrepreneur today is vastly different from manoeuvring around the margins of the informal economy under socialism. To understand how NGOs are acting as social entrepreneurs and innovators we need to examine their ability to turn ambiguity into an asset. Studies of firms indicate that this is best done by re-combining, re-cognizing, and re-presenting existing material and ideal resources. How might such a recombinatory approach affect NGOs?

One possible answer is that NGOs might seek to become more isomorphic with businesses or government agencies with which they compete. Such an attempt at recombination makes sense given the pressures facing today's NGOs, as from the United States to Eastern Europe they encounter new and similar problems. For example, NGOs are being thrust into service-provision roles by governments who turn to them as expedient, if not always effective, sub-contractors for diverse issues from health care to housing (Kuti 2001; Osborne 1998). At the same time, they are overwhelmed on a day-to-day basis with the uncertainties and resentment generated by economic and social change. The scarcity of donors forces some NGOs to turn to business solutions to survive and to intensify their relations with business and government. Thus self-interest compels increased co-operation with public and private sectors. This opens new opportunities for sustainability, yet if they work too closely with the state or business, NGOs risk serious accountability problems, including co-optation, loss of legitimacy and failure (Bendell 2000; Hulme and Edwards 1997). Conversely, if NGOs reject co-operation with state and market forces too radically they risk slipping into an exclusively oppositional role with diminished opportunities for agenda-setting. Co-optation by state and market forces are the Scylla and Charibdis of NGOs.

Even more difficult than avoiding co-optation may well be distinguishing co-operation from co-optation at all, as the state and market undergo fundamental changes. NGOs are caught in similar radical transformations; globalization is a time of redefinition and uncertainty, and for NGOs this situation exacerbates their already ambiguous position between state and market. Being forced to negotiate multiple and contradictory claims may lead to redefinitions of the organization itself. By regarding NGOs as emergent organizational forms we may gain a

welcome perspective from which to track the development of this important sector in times of great change.

Interactive Technology as a (Re)source for Organizational Change

One felicitous perspective for observing change within NGOs lies in their use of interactive technologies such as the Internet, which is widely held to have a significant impact on both democracy and organizations. The advent of many-to-many communication (as opposed to one-to-many) has direct bearing on the social, institutional and international environments in which NGOs operate (Naughton 2001; Gurstein 2000; Schuler 1996). Interactive technologies are becoming important in expanding the web of social interaction, increasing its density, and promoting new connections among diverse and dispersed social actors.

Many committed proponents of democracy are highly critical of these new technologies and perceive the Internet as just another means for instrumental rationality to colonize our life-world, where “freedom on the net is the freedom of the market” (Dean 1999). Equally committed colleagues, including representatives of many American foundations, could not disagree more, seeing the Internet as “particularly suitable to building open societies” (OSI 1993), enriching and empowering civil society, and acting as a natural catalyst for democracy. Similar oppositions are drawn regarding the introduction of interactive technology into organizations. Champions of interactive technology tout its potential for reducing constraints, improving communication and increasing participation within firms. Critics are fearful of the surveillance dimension of new technologies, their potential to turn the modern workplace into a panopticon and the potential alienating effects of computer-mediated communication.²

Such proponents and detractors of interactive technology commit the common fallacy of reading social effects from technological properties. Discussions about controversial issues regarding digital technology—from how to provide equal access to what new laws should govern the virtual world—almost always start from normative premises about technological properties. Yet, while assumptions about technology’s social effects provide rhetorical ammunition, they tend in most cases to outstrip our knowledge of how technology is actually used (O’Mahony and Barley 1999). The social practices that evolve around the use of a technology tell us more about its effect than assumptions based on technological properties alone (Bijker 1997; Orlikowski 1992; Giddens 1984). Technology only “affords” certain potential uses (intentional and unintentional), but it is the institutional setting that determines whether these “affordances” are recognized (Bockowski 2001). Accordingly, rather than speculating on whether a certain technology will lead to a specific outcome, empirical studies about how people interact with technology can help trace how technology facilitates or constrains social practices, and how certain paradigms transform or replicate themselves.

² The most widely-publicized report on negative social effects of the Internet by Kraut et al. (1998), has been considerably modified in a less negative direction by his more recent research (Kraut et al. 2002).

As we will see, the use of interactive technology is an inescapable part of Eastern Europe's rapid social change. How is technology conditioning the shape of these changes? What relation exists between NGOs and their confrontation with new technologies? At first glance we found a felicitous elective affinity between NGOs and interactive technology. Communication and networking are integral to NGOs' basic tasks of getting information to constituents, channelling and interpreting information from varied sources, aggregating information and demands and transmitting them to diverse audiences, and mobilizing individuals and groups. Interactive technology is designed and promoted as a tool for processing information, increasing communication and facilitating networking. If technology is seen as a tool, then NGOs seem organizationally ideal for adopting information technology.

The problem with viewing technology as a tool, however, is that once new technologies are introduced to solve old problems, the problems themselves change. Email may enable an NGO to increase its level of communication, but it may also create such a flood of requests for information that the NGO becomes paralyzed (compare with DiMaggio et al. 2001). Early studies of decision making via email find that email may make it harder to resolve conflicts, and that consensus building may be more difficult electronically (Sroull and Kiesler 1986). The need for computers, bandwidth and skilled staff affects the budgetary structure of NGOs, and raises new workplace and accountability issues. Web sites are often carelessly designed, yet they are increasingly becoming the representation of an organization to the outside world. Thus while it is true that NGOs' functions significantly involve information, communication and networking, it does not follow that these functions will necessarily be improved by the properties of interactive technology. They will, however, most likely be transformed. The design of a technology seldom corresponds to its actual use (Suchman 1987; Fischer 1992), and organizations themselves change when they adopt different practices to make use of technology.

NGOs and Interactive Technology in Eastern Europe

Almost overnight, NGOs in Eastern Europe went from the limitations of a pre-Gutenberg setting to the opportunities of advanced communication technologies. Despite material limitations, NGOs today in Eastern Europe preside over an almost unprecedented amount of technological firepower. Prior to 1989, the few beleaguered voluntary associations communicated by *samizdat*.³ With no access to photocopy machines, pre-1989 civil society organizations such as the Polish Workers' Defense Committee (KOR) or Charter 77 attached special springs to typewriter keys to produce up to seven carbon copies of their documents. In Prague, for example, it was not uncommon for the members of an underground philosophy seminar to circulate texts that were literally in manuscript—some in the handwriting of elementary school children who had painstakingly copied a parent's writings so it could circulate more widely.

³ The clandestine printing and distribution of literature banned by the government, especially in the former Soviet Union and the communist countries of Eastern Europe.

Today a relatively developed telecommunications infrastructure covers the historical core of Central Europe (Poland, the Czech Republic, Slovakia and Hungary). Yet advances in the introduction of interactive technology are distributed unevenly across the four countries. Poland, for example, boasts the highest number of Internet hosts overall and the highest total connectivity. The Czech Republic, however, claims the highest numbers of hosts per capita, which indicates a greater penetration of the technology throughout society. Hungary has the highest number of backbone hosts, indicating a more decentralized market structure, while Slovakia, lagging in most other categories, surprisingly leads in the number of Internet users per capita (www.cceenet.org, accessed November 2000).

The organizational structure of NGOs also differs across the region. While they share some qualities such as segmentation and relative decentralization, each country differed in subtle yet important ways during socialism and began the transition with different sets of institutions (Stark and Bruzst 1998; Anheier and Seibel 1998). NGOs in Poland suffer from the lack of both state and society support, while in Hungary NGOs face a different challenge: the government has sought to use them as a vehicle for privatization and political control (Anheier and Seibel 1998; Ekiert and Kubik 1999; Kuti 1996). Despite sharing in the dramatic growth of NGOs (from slightly more than 2,000 in 1989 to over 40,000 in 1998), the Czech state has favoured pre-1989 organizational relationships with civic associations involved in “safe” areas of education and sports, resulting in criticism that it is reducing civil society’s involvement in the policy-making process and thereby inhibiting civil society development (Green 1999; Potucek 2000). Slovakia, whose social development was hampered by long years of political stagnation under the former Prime Minister Meciar, saw a growing role for NGOs in the 1998 “get out the vote” campaign (Wagner 2001).

The relationship between NGOs and interactive technology in the region is extremely mixed. Funding from Western foundations made up the initial influx of interactive technology, especially grants from the Soros Foundation and the United States Agency for International Development (USAID) to enhance connectivity and promote electronic communication, some of which were then re-granted by local organizations. This type of explicit funding for information technology has markedly decreased since the mid-1990s, with the notable exception of that from the European Union. The cost of going online remains prohibitively high, with Hungary, Poland and the Czech Republic remaining in 2000 the most expensive countries within the Organisation for Economic Co-operation and Development (OECD) for the price of 30 hours of connection at off-peak times (OECD 2002). The high rates charged by telecommunications carriers result in fewer users and constrain existing potential for Internet use: for example, in Hungary, although 300,000 households had computers in 1999, only 50,000, or 0.7 per cent of all Hungarian households, subscribed to the Internet (Pattinson 2000).

The problems that NGOs encounter in using interactive technologies are serious and form a familiar litany: lack of funding to purchase equipment or services, lack of skilled staff, too little time and interest. We must not forget that the majority of NGOs by all accounts appear not to have computers. Some NGOs find ways to overcome even this obstacle by using public

terminals at “tele-cottages”, public libraries or Internet cafes. But even for NGOs with trouble-free access to the Internet, keeping up with technology can create difficulties regarding the effective allocation of scarce financial resources and changing valuation of competencies among the staff. These problems will intensify as using technology becomes increasingly part of an organization’s daily life. Some of the unexpected organizational challenges resulting from the undeniable difficulties of adapting to a different technological environment will appear in the following discussion of actual cases (especially regarding meta-NGOs).

Using interactive technology, we stress, is no guarantee of any positive outcome in a given organization (though, by the same token, its use cannot be regarded in itself as detrimental). Consider NGOs’ use of their Web sites. Thousands of NGOs in Eastern Europe maintain Web sites today, with vastly varying results. In a preliminary study during spring 2001 of NGO Web sites in Hungary, the Czech Republic and Slovakia, Bach and Vedres found that the sites varied widely. About one-fifth of the sites studied were rich in information and online activity and were sophisticated in design, followed by a group of similarly rich and active but amateurishly designed sites. More than half the sites we encountered, however, were outdated, contained little in the way of information and lacked any indication of activity.⁴

These findings, while preliminary, hint at a larger story about how and why NGOs find it desirable or necessary to have a Web site and how they use it. In interviews Bach and Vedres were told that Web sites were perceived as indispensable “calling cards”, but that endowing them with functionality beyond a simple page often exceeded resources and skills. Some NGO staff saw Web sites as necessary to remain in the good graces of foreign donors, and this catering to donors might explain why, of the approximately 20 percent of the Web sites surveyed that featured languages other than the local one, they were nearly always English or German. Only in the rarest of cases did a Web site feature a neighbouring Eastern European language. Some sites were full of activity in the local language, however, reflecting not only a vibrant virtual culture but also an interest in exploring new ways to be active in society.

Nevertheless Web sites are but one facet of interactive technology. It is important to understand the dynamics of Web presence, but of greater interest is how the use of technology, including Web sites, contributes to organizational transformation (compare with Orlikowski and Iacono 1999). Let us therefore look more closely at some examples of NGOs in Eastern Europe whose own form and function are changing with their use of interactive technology. The following cases were drawn from interviews and research conducted during 2000. They are not meant to be a representative sample of the region but rather to highlight NGOs that seek actively to adopt interactive technology. This is a small but growing group, and their experiences may prove relevant both to understanding regional trends, as more and more NGOs go online, and to understanding how technology and organizations co-evolve.

⁴ From March through May 2001, Jonathan Bach and Balazs Vedres studied a random sample of 600 NGOs from the Czech Republic, Hungary and Slovakia, drawn from a population of 1,500 NGOs compiled from available directories. They measured for centrality based on the number of incoming links to a given site and then focused on stratification by identifying groups of Web sites with peculiar combinations of properties, employing cluster analysis and discriminant analysis.

From Brokering to Collaboration: Hybrid NGOs

Digital technologies make it easier for people to reconstruct what counts as information so that its definition, or at least its circulation, is no longer the exclusive prerogative of those with power, money and connections (Nunberg 1996). The increased ability of individuals to gain access to large amounts of disparate information is justly celebrated as empowering (Cairncross 1997). At the same time this kind of access presents serious problems for any organization that seeks to exert control over information collection or dissemination.

NGOs have a long history of brokering information as both a service and a source of social and financial capital. We suggest that acting as information brokers is ultimately an inadequate response to the conceptual shifts of the digital age, because it relies on antiquated ways of understanding communication flows. Nonetheless, providing information remains a central function of many NGOs, and the more savvy organizations within the information broker model are learning to compensate for the shifting environment by creatively marketing their information. They augment their now easily shared information, such as directories or databases, with value-added aspects, such as efficient search engines and non-database related services, such as training and Web hosting. In the process, they begin to make services available that provide not only information as such, but knowledge forms such as skills (know-how) and, through collaboration and links, knowledge of others (Peizer 2000).

NGOs are thus learning to approach information as a commodity in order to enhance sustainability. The resulting outcome-oriented processes are leading to hybrid NGOs that combine social and business ventures, such as the “dot-corg” dual enterprise model, in which revenue generating is separated from the NGOs’ social mission and evaluated according to business metrics, or in which the NGO sets its long-term goal as evolution into a socially oriented, for-profit venture, such as many Internet service providers in Eastern Europe who began as non-profits and grew into viable businesses (Peizer 2000).

The Center for Advanced Media—Prague (C@MP) is an example of this kind of hybrid NGO. Its origins lie in the Soros Foundation’s early work on providing Internet access and training to Central and Eastern Europe. By the mid-1990s, however, the foundation’s attention had shifted from providing access to developing “content” with greater emphasis on sustainability. One result was the Media Development Loan Fund launched by Soros’ Open Society Institute (OSI) in 1996 to support low-cost financing and technical assistance for independent “indigenous” media in transition countries as a means to facilitate debates on core economic and social issues (www.mdlf.cz). The fund, with a Prague and a New York office, developed C@MP in 1998 to advance new media operations. Its audience consists of independent media and NGOs in the post-communist and developing worlds that seek new media concepts and solutions. C@MP delivers such services through training, technical and content-building consulting, and project-oriented product development.

C@MP seeks to create a self-organizing “hub” for the interaction between digital and print media. Although its beginnings lie in Eastern Europe, it has quickly moved beyond being a

regional NGO and sees itself as an “interface”, offering opportunities for technological collaboration between the developed and developing countries. Its projects, accordingly, are not limited by geography; and they extend from South Africa to Southeast Asia, where the organization was a finalist in the Ericsson Internet Community Awards for its work with a virtual nationwide radio network. As a member of the World Economic Forum’s Global Digital Divide Initiative, C@MP is actively involved in finding opportunities for overcoming the digital divide.

For independent media to fulfil its role in democratic and democratizing societies, it needs to compete and function at the standard of commercial media, especially regarding content distribution and avoidance of censorship. One of C@MP’s most innovative elements is the “Campware” programme, which develops software for independent media that cannot afford to meet the requirements of an increasingly electronic medium. Campware helps with automating Web publications, managing subscriptions and allowing remote contributors to feed content to the publisher’s database; and it also offers content management software. The programme is innovative in the way it develops and delivers technical assistance. In helping design software that would otherwise be beyond the means of independent media, C@MP works with existing bandwidth and resources to remain relevant and effective. It builds self-support networks to rival the technical support components of commercial software, which itself becomes a collaborative international enterprise. Importantly, all the software is made public (under the GNU General Public License) so that its development can benefit from maximum input; and the organization also provides limited fellowships to help develop Open Source projects.

C@MP thus uses technology to transform technology, while pursuing a normative mission with social change as a desired outcome. The organization’s output is increasingly identical to the client’s input: in other words, rather than a top-down service delivery relationship, C@MP’s expertise is shaped by the collaborative activity of its members. If C@MP’s private sector analogue is a consultancy firm, then we can see its success as a result of a “collaborative advantage” (compare with Huxham 1996).

Although C@MP began as an information broker trying to fill “gaps”, it has evolved into what we can call a knowledge facilitator through its emphasis on collaborative production of software solutions and self-support networks. This is part of the shift from “information” as a discrete property that (in theory) exists independently of a subject, to “knowledge” that requires a knowing subject and cannot be conceived of independently from the communication network in which it is both produced and consumed. The very notions of producer and consumer are blurred by the emphasis on knowledge facilitation. This blurring is to some degree a function of digital technology’s characteristics: online consumption, for example, blurs with production process by allowing (or forcing) users to engage in an activity formerly relegated to production, such as data entry, or by producing information in the act of consuming that is then sold for profit (for example, information gathered about Web-surfing

activities). Yet the social effect of this obfuscation of traditional roles ultimately depends on how organizations approach this situation.

Embracing collaboration as C@MP does is not an obvious choice for most NGOs, because the information broker model is a reasonable and conditioned reaction from the age of mass communication and mass production. Modern society is traditionally organized along lines of access to quantifiable information brokered between those who have information and those who want or need it. It has an hourglass structure, with information passing through the broker in the middle on the way from A to B, similar to Burt's (1992) bridges across structural holes or Latour's (1988) obligatory passage points. This can take the ruthless form of a monopolistic corporation or the benevolent form of an NGO seeking to spread formerly guarded information. Structurally, however, brokers work in the same way by exploiting gaps and, accordingly, gaining rents. They have a vested interest in maintaining the gap between information producers and consumers. The affordances of interactive technology can be used to maximize this brokering role, along with the power (and perils) that come with it.

In contrast we can imagine a "knowledge society" with the structure of a network, emphasizing not information per se but communication. Whereas in an information society brokers have a vested interest in maintaining the gap between information producers and consumers, organizations in a knowledge society function as facilitators and help blur the line between users and producers. This does not displace or solve the practical and epistemological problems occasioned by "information" (for example, how to process large amounts of data, how to insure data protection, how to ascribe meaning to data), but raises different questions of an ontological nature and questions the very a priori assumptions of organizational forms. Knowledge network facilitators, as opposed to information brokers, have the potential to be genuinely transformative of social structure. But what sort of NGO would take on this task?

Creating "Knowledge Sources": Arts, Culture and Communication

In the forefront of NGOs that initiate technological innovation are new media arts organizations. Arts organizations are rarely considered as national resources for innovation. Yet they are well-positioned to act as knowledge facilitators rather than information brokers, to mediate between design and use, to have sociocultural insights that governments or corporations lack, and to engage in experimentation on a constant basis (Century 1999). New media arts organizations confront the paradoxical way that interactive technology recombines much of the traditional toolbox of artists:

All the strategies developed to awaken audiences from a dream-existence of bourgeois society, like constructivist design, new typography, avant-garde cinematography and film editing, as well as photo-montage, now define the basic routines of post-industrial society; that is, the interaction with a computer (Manovitch 1999).

Artists, however, are seldom content with the basic routines of society; and new media artists search for ways to illustrate the radical nature of everyday interactive technology, and at the same time to push the technology itself to new tasks and forms. While often highly critical of capitalism (see, for example, www.eto.org), the very playful, exploratory attitude that fuels art catches the attention not only of critics and audiences, but also of industry. Firms, such as Xerox or Ericsson, have taken interest and have come to regard artists and art organizations as a laboratory of sorts, consisting not of research scientists but of “research artists” (compare with Larcon 1998; Harris 1999). “What distinguishes art from the research sciences and commercial entrepreneurship”, writes Joel Slayton (1999), “is a very thin veil.” New media arts organizations are therefore good examples of the sort of entrepreneurship discussed earlier. As their relevance for industry grows, they have to find a balance between their role as incubators of future designs and technologies, and their sense of social responsibility and critique. The lines between art collective, start-up Internet company, research laboratory and socially conscious NGO are increasingly blurred.

The Hungarian Center for Culture and Communication (C3) exemplifies this type of NGO. C3 has evolved from a public centre for artists to a self-described centre for advanced research and development, with the application of new media technologies at its core. The organization sponsors myriad exhibits and projects, including grants; but one particularly relevant example of its critical, functional and experimental work is support for public access Web terminals, set up in 1998 in order to “make the advantages of network information and communication manifest to every literate passer-by, or at least [to ensure] that the existence of digital culture is not a mystery, [to show] that no special expertise is required in order to handle it, and that the rich content of the Net offers the procurement of information, as well as dialogue” (www.c3.hu).

Mixing the social criticism of the artist with new media opportunities resulted in the “Inside Out” project that ran in the earlier days of C3, from 1997–1998. The rise of homelessness was one of the more shocking elements in the inequities of the market system, and C3 sought to draw attention to the problem. The challenge was to approach the subject without further reinforcing the conception of the homeless as “others”, outcasts whose situation evoked pity but no understanding. “Inside Out” gave colour disposable cameras to approximately 40 homeless persons in Budapest, with no instructions aside from the invitation to photograph those aspects of their everyday experience that they felt important or interesting. They knew that their pictures would be viewed eventually as part of a public exhibit and Web site. Each photographer was interviewed about the photos after they were printed, and each was compensated for his or her work. The exhibition and Web site served to humanize a marginal population, while helping make homelessness a topic for public debate.

C3 also provides a service for NGOs, hosting their Web pages and providing a directory of NGOs hosted on its server. C3 was one of the first NGOs to offer a free dial-up email system that grew to over 300,000 users (it was later sold to the Hungarian telephone company Matav). Its main Web page looks like a periodic table of elements, with each element a link to other

pages in the site. There are current and archived virtual exhibits, digital video, software to download, a sophisticated e-magazine and links to international art databases. Going beyond the innovative use of technology, C3 itself offers grants and residencies in support of projects “which demonstrate an expanded exploration of digital media technology, display creative usage of the Internet, and which offer challenging and innovative ideas regarding communication and culture” (Eisenstein 1999). C3 sees itself as a space for innovation in the use and even creation of digital tools and as a place where the spheres of art, science and technology can meet and co-operate. Andrea Szekeres, C3’s programme director, sees C3 not as a “centre” in the traditional sense, but in as an organization that treats its users as “producers of knowledge”. “They might not think they are producers of knowledge but they are,” she told us. “We help them be a knowledge source.”

Szekeres’ comment is telling, because it points to the shift discussed above from information to knowledge, from users *and* producers to users *as* producers. Interactive technology may be a necessary development for this shift, but it is not sufficient. The information broker model remains dominant for reasons of expedience and inertia; the promise of revenue from gaining rents is a more familiar bet than the promise of facilitating knowledge networks. Knowledge-based organizations also face being held to account in multiple registers, an inherently unstable situation that requires ingenuity and flexibility. Yet as NGOs adapt to changing environments, they will increasingly be faced with a need to re-evaluate their roles. Co-existing and competing evaluative principles within an organization will increase as interaction with governments, private funders, business, other NGOs and constituents increase in complexity. The conjunction of globalization and privatization that forms the environment for NGOs in transition countries will make it difficult to operate successfully on a strict information brokerage model. How is this tension between information and knowledge models manifesting itself among NGOs?

“Meta-NGOs” and the Virtual Public Sphere

We confront this tension in the emergence of “meta-NGOs”. These organizations’ primary purpose is to provide information and assistance to other NGOs, including databases and online services, and they effectively strive to serve as clearinghouses for a country’s NGO community in whole or in part (compare with Fazekas n.d.). Today there is at least one such organization in each country, and usually more. A typical example is the Slovak NGO, Changenet, which bills itself as the “virtual community of Slovak not-for-profit citizen’s organizations”. Changenet provides a press service for NGOs to centralize their press releases, a calendar of events organized by NGOs, a classified advertising area for NGO-related issues (services, spare resources, jobs), databases on funding and news media organizations, and a subjects area (environment, human rights, youth, charity) that provides original content, in the form of explanations and FAQs, as well as texts of selected laws and how-to manuals. It also provides a gallery for a “photographic perspective” on issues important to NGOs. Particular to Changenet is a section providing information about a Slovak council of NGO organizations. A thematic link page is broken down into topics that generally mirror the subject areas. An account (with five email addresses, Web space, access to online conferences and restricted areas

of the Web, technical support and training) is available to NGOs for a nominal fee. Essentially Changenet is organized like a house with many rooms to visit and amble through. Design is important to the function of meta-sites; and this organization tends to pay more attention to it than other NGOs (except art-oriented sites).

While meta-NGOs act as conduits of information for their members, thus fitting an information brokerage model, their use of the Internet often leads to the creation of networks of communication beyond the purview of the organization. Tension thus arises concerning its level of "control" and the positioning of the meta-NGO relative to its constituents in what we can label the "virtual public sphere": NGO sub-networks are often under the "jurisdiction" of the meta-NGO in cases where the meta-organization provides member NGOs with a Web site, server space, connectivity, training and guidelines, as well as providing individual users with moderated environments for communication. Meta-NGOs would like to be the primary, if not the sole, provider of these kinds of services to their specific NGO community. In the language of advertising, they aim to be the "category killers" and avoid redundancy through consolidation. While this kind of consolidation may make sense given resource scarcity, it raises questions as to whether it might dull the community nature of the Web. The logic of consolidation confronts the desirability of diversity.

A second tension arises from the meta-NGOs' wish to generate income to support their operations. The virtual public sphere is run through very real computers, servers and connections, all of which cost money. At what point does the need to charge for services or partner with commercial enterprises sacrifice an organization's autonomy or commitment to social justice? It is not clear that this is necessarily a problem, because it is also possible that entrepreneurial elements of NGOs are what allow for creative solutions. Yet entrepreneurial activity can lead to a crisis of legitimacy if badly handled, or if the result is co-optation or commercial domination.

Despite these tensions, meta-NGOs have great relevancy for shaping the virtual public sphere because of their claims to be representative and their high visibility in search engines and links. Klon/Jawor in Poland is an example of the most sophisticated type.⁵ Originally a developer of a non-profit database, this organization shifted in the late 1990s from simply gathering data on NGOs in Poland to providing more tailored information for Polish NGOs and promoting the flow of information among them. To provide a means for NGOs to gain Internet access, an Internet server (www.ngo.pl) was established. This was then complimented by an extensive Web site (www.klon.org.pl) and a non-commercial free service for NGOs (free.ngo.pl), which currently has approximately 2,000 accounts. Plans were underway in autumn 2000 to develop a template that NGOs could use to quickly and efficiently gain a Web presence by filling in a form that would generate a Web site.

⁵ The discussion of Klon/Jawor and the Hungarian NGOs draws upon the research of Erzsebet Fazekas —a doctoral student in sociology at Columbia University—for the project.

Klon/Jawor is a textbook case of how a relation to information transformed an NGO into a central node. Founded by a group of sociologists from the University of Warsaw, Klon/Jawor developed a (print) database on NGOs in its early years, making it a place for NGOs to turn to for information about the rapidly developing sector. A dense network grew up with Klon/Jawor as a central node, and the organization became even more essential to other NGOs as they gradually moved many of their databases to the Web and added services such as free email and Web site hosting. In 2000 Klon/Jawor became fully independent (it had been affiliated with an older civil society organization, the Regardless of the Weather Foundation); and it now presides over a physical and virtual network as the head of a consortium of 12 smaller centres that support Polish NGOs (known as Splot). Like many other NGOs, Klon/Jawor took advantage of privatization and struck a deal with the government to acquire its own building, renamed the Szpitalna Center, now shared with nine other NGOs. Working closely with the Batory Foundation, the local representative of the Soros Open Society Institute, Klon/Jawor seems to have rather comfortably laid claim to its central and progressive role in the Polish NGO sector.

Fazekas argues that the cohesive nature of Klon/Jawor is a function of country-specific factors allowing Polish co-operative networks to morph relatively painlessly into a formalized structure. In contrast, Hungarian meta-NGOs did not exhibit the social intimacy and camaraderie that were the norm at the Szpitalna Center. Their relations were pervaded by distrust and competition, caused in part by a more pronounced generational split, between a younger generation of activists who increasingly adopted the rhetoric of professionalization clash and an older generation committed to grassroots organizing.

It was in this context that a planned Hungarian co-operative venture to establish an NGO portal for the region went sour—in part because of distrust between two organizations that we will refer to by the pseudonyms “Information Central” and “Civic Sector Action”. Like Klon/Jawor, both were the creation of academics. Information Central saw its primary role as information gathering and dissemination, while Civic Sector Action focused on consulting and training to build sustainability. Both NGOs were constrained by the competition for limited funds that affects all NGOs in the region to various degrees. As one programme director at a third Hungarian NGO put it, all local foundations want to be not only the only source of information but also, significantly, the NGO closest to the Soros Foundation.

The co-operative plan to establish an NGO portal sought to establish an interactive information and communication platform where both civil society actors and representatives from other sectors could communicate. Meant not just for Hungary but for all of Central and Eastern Europe, this portal aimed to improve NGOs’ services through use of the kinds of “new media technologies and knowledge resources of its members” that would help “form communities around various areas of interest and devise independent projects in collaboration with others” (Fazekas n.d.:63). This enhanced communication and interactivity was to be achieved through chat rooms, listservs, forums and the availability of technical know-how.

Yet while the focus was on collaboration and utilization of knowledge resources, neither organization was particularly keen on co-operation. Civic Sector Action possessed neither the resources nor the willingness to shoulder all the costs. To win a grant for this project, it was necessary to complement its strengths by associating with a partner who had experience in information dissemination. Information Central seemed a perfect choice, since Civic Sector Action could increase its own visibility, by being the lead organization in the grant, and in the process eliminate Information Central as a rival in overlapping areas while benefiting from their resources. Information Central approached the overtures for co-operation warily; and distrust overcame potential mutual interests, resulting in failure. Ironically, it was Information Central which, late in 2000, received a prestigious grant to create a very similar, though less ambitious, portal, whose goal is to “to make accessible at one place all the services and information now dispersed in a structured way” (Fazekas n.d.:56).⁶

Klon/Jawor and the Hungarian NGOs generally have found themselves following the technology, often pushed by the priorities of the funders and pulled by the demands of their clients. They innovatively use interactive technologies, yet they are only beginning to stress user innovation and tacit knowledge, or to combine technological know-how and sociocultural insight in a collaborative environment (Century 1999). They are, however, important organizational developments in an emerging virtual public sphere and exemplify the transition from information to knowledge among civil society actors.

If meta-NGOs are successful in facilitating knowledge networks rather than providing mere information brokering, then NGOs may become less a space for the “anti-politics” that characterized civil society under the old regime than a sphere for what might be called “para-politics”, concerned with improving access to information and facilitating contact and collaboration between people and groups. This would not extend an already existing public space into the virtual realm, but rather create a new type of interaction among individuals and organizations. Ideally, meta-NGOs will become a vital part of a virtual public sphere, structured as an emerging networked social system that distributes knowledge production along self-organizing principles.

Conclusion

NGOs such as C@MP, C3 and Klon/Jawor are co-evolving along with interactive technology, as they move from brokering knowledge to facilitating collaboration, developing hybrid entrepreneurial programs and creating new organizational forms such as the virtual meta-NGO. Since technology both shapes and is shaped by the society from which it emerges (MacKenzie and Wajcman 1985), C@MP’s media software and C3’s experimental virtual art also transform *technology* through their practices. This same symbiotic process also transforms social

⁶ The planned services include a “non-profit press observer”, a mailing list for civil organizations, a grant observer and funders’ directory, search engines, databases of NGOs, an online consultation service, a map of non-profit service providers, introductions to different NGOs, a matchmaking service for fundraising, service seeking and problem solving, and an online non-profit bookstore (Fazekas n.d.).

relations (DiMaggio et al. 2001; Marcuello 1998). For example, the linguistic codes that transmit socially shared meanings are changing, as the vocabulary of “listservs”, “baud rate”, “hyperlink” and the attendant jargon of the Web become commonplace for educated users. Originally used in English, these terms have now been translated or adapted into local languages, so that initiation into the language of technology is now easier for larger numbers of people. This new literacy brings with it altered social relations: within organizations that embrace new technologies, we observe an increase in social status among those who are proficient in the language and use of computers (Marcuello 1998). The type of educational background and experience necessary for mobility within the NGO world thus changes to include fluency with technology, which means not only literacy but familiarity—a certain ease of interaction—with technology.

This is significant because, at their most ambitious, NGOs seek ultimately to change social practices and redefine public discourse. The shifting linguistic codes mentioned above are one way in which the co-evolution of NGOs and technology are embodying and fostering new practices. Others include relying on email as a central organizing tool for any progressive political campaign, or the trend toward challenging the idea of what constitutes adequate access to computers and the Internet, as the standards that define the so-called digital divide are raised and refined.

For the future evolution of NGOs themselves, the possibilities for networking provided by interactive technology are of key importance. Broad networks linking people and organizations across regions are not in themselves democratic, but they do help institutionalize methods of communication that are not (yet) as easily susceptible to censorship or monopoly control as communication was in the past. By playing a major role as the central actors in such intersecting networks, even nationally based NGOs could take on an additional role of facilitating knowledge and collaboration that goes beyond their provision of “safety nets” and “safety valves” (as discussed above). Such a development could herald new roles for NGOs in the construction of a global civil society (see Salamon et al. 2001; Warkentin 2001; Anheier et al. 2001).⁷

These organizational changes in NGOs—real and potential—are directly related to the larger societal changes (positive and negative) that are inextricably intertwined with the use of technology: changes in the circulation of information, the value and form of labour, the nature of the commodity, new methods of political mobilization, and new forms for identity and self-expression. The move toward knowledge brokering and value-added information services shows NGOs are adapting to the changing political economy. Some of the rewards for this are sustainability, innovative capacity and transformative potential. Some of the challenges they will face lie in the increased professionalization of the voluntary sector, commercialization, the

⁷ If NGOs institutionalize networks in which weak ties distribute non-redundant information to the widest possible audience, this could have meaningful social implications since weak ties form the best bridges across social worlds and increase innovative potential (Granovetter 1973; Burt 1992). If this were done primarily through online ties, however, they would still have to be sufficiently strong to provide even the minimum benefits of weak ties, a point on which there is some disagreement (Walsh and Gabbay 1997).

proliferation of performance criteria and accountability problems. NGOs are becoming sites of competing and co-existing evaluative principles, caught between the value systems of business (efficiency, solvency) and social mission (adherence to principles, ideological agenda). In the best case they may exploit these contradictions, but the danger is real that actors who are accountable according to many principles become accountable to none (Stark 2001). For the countries of Eastern Europe, these issues have become particularly acute as they seek to be part of a more tightly integrated Europe. More research is needed on how NGOs negotiate these opportunities and challenges as they increasingly collaborate with state and market.

Our observations are a snapshot of a period in great flux. The Internet as we know it may soon merge into a mixed form of telephony and broadcasting that could make “the Internet” (with a capital “I”) a historical marker rather than a permanent descriptor of digital interactive technologies to come. Instead of attempting to predetermine the outcomes of interactive technology’s social effects, as futurologists are wont to do, we would rather view its advent as what Georg Simmel called an “interstice”—an opening that allows people to produce innovative responses when large-scale change “disorganizes” the familiar world. NGOs in Eastern Europe face a doubly disorganized world, for not only is transition itself a traumatic upsetting of generations of conditioning, but NGOs today often find themselves ill-prepared for the different tasks they face, despite their predecessors’ earlier success in overthrowing recalcitrant regimes. We are cautiously hopeful that the affordances of interactive technology will be used by NGOs creatively to confront the uncertainty heralded by the new century, and not simply to submit to its exigencies.

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