

# **Connections and Transformations: Linking Technologies and Society in Africa and Beyond**

## *Prologue*

Inserting the word 'connections' in search machines like Google links one immediately to sites of ICT companies, to Celtel and Vodafone. Indeed these new technologies are playing an important role in literally connecting people; they add to the increasing possibilities to communicate, creating a world that increasingly resembles to the idea of the global village. In Africa this new way of connecting people is creating possibilities where they did not exist in the past. Companies like Vodafone and Celtel are rapidly expanding their markets in African countries and local companies are coming on the scene. It is generally agreed that the introduction of the mobile phone will lead to a revolution in social transformations in the coming decades and more specifically in Africa where the development of communication technologies has been slow compared to other continents. What seems to be the obvious introduction of a new technology however raises many questions in the field of social studies. The cell phone creates new linkages and new social spaces in which people can develop new practices. These connections and linkages can in themselves be considered as creating changes and thus they may be considered social technologies. The revolution of this communication technology should also be understood in terms of social technologies and the creation of connections. But how different are these developments from similar 'revolutions' in the past? Do they indeed lead to new ways of connecting, to new ways of creating connections, and therefore to new patterns of social transformations? Or are these patterns repetitions, based on cultural and social repertoires that have been built up in the histories of the societies we are studying? These developments are embedded in an optimism of new developments, neglecting the fact that processes of change have always been accompanied by exclusion and disconnections of groups or individuals in societies. They introduce new patterns of power and new hierarchies and new social inequalities. Therefore, in a study of the relationship between technologies and connection, disconnection and the introduction of new social hierarchies should be at the fore.

The theme group seeks to explore questions around the introduction of technologies in African societies and the social transformations this implies. Our point of departure is the way technologies enable people to create connections that may lead to social transformations in their societies. The theme group will link up with debates about the relationship between technology and society, and the discussion on connections and social transformations. It will explore the socio-historical and cultural relationships that have developed between people and technology in Africa. Although the mobile phone illustrates very well the field of study of this theme group, it is only one of the new developments in the introduction of new technologies in Africa.

The central objective in this research programme is to unravel the dynamics of the interaction between changes in connections or disconnections and the introduction of new (communication, social and organizational) technologies and how these dynamics translate into social and cultural transformations in Africa and beyond.

**Visualization of the research programme:**

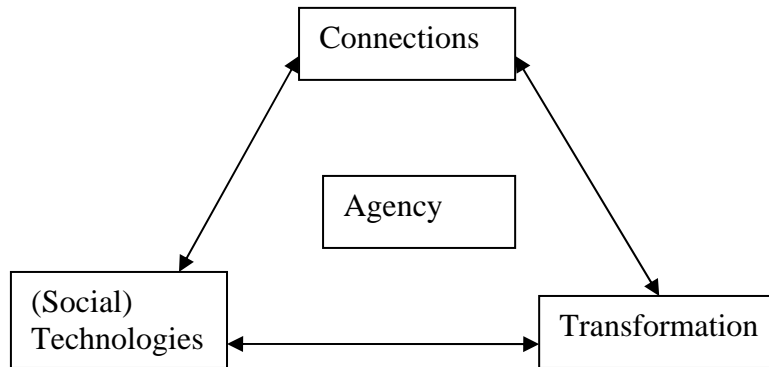


Figure: The interrelationship between connections, (social) technologies and transformation in the analysis of processes of social change. (The point of departure for discussion can be in any box.)

<b>Old/past/continuity</b>	<b>New/present/'invention'</b>
Technologies	New technologies
Connections	Connections
Transformations	Transformations

In the research we are not only interested in 'new' technologies, 'new' connections and 'new' transformations, but especially in continuities and ruptures between old and new. Old technologies may lead to new connections in different circumstances; new connections may be inspired by old technologies but they may create in their turn new social technologies too.....

### **History of the research group**

This research group is made up of an interesting group of scholars who come from different traditions in the social sciences. Social history, geography and social anthropology are the main disciplines of the group's researchers. In 2002 the group started a research programme around issues concerning 'Agency in Africa'. By choosing agency the group has situated itself in the long line of interests for the relation between agency and the specific conditions of African life. Seeing agency as part of the production of specific social formations, of the dynamics of interaction between people, and between societies and their predicament and environment in Africa, a number of key areas for research were identified. Each of them was meant to provide particular answers and insights as to the nature of that agency in the production of these social formations. Yet, while being topical in the understanding of the present predicament of African societies, the study of the relevance of agency in and for Africa is dependent on a long history of continuity and change in the application of the concept itself. The agency approach has a long tradition in anthropological and historical studies in and of Africa, and is a continuous comment on common/accepted theories. Over the past four decades or so, it is striking to note that all major social-science paradigms explaining the predicament of African societies in terms of structure have been countered and critiqued by perspectives that have emphasized agency; the productive and creative capacity of people and groups to construct social formations that are capable of negotiating pressing conditions.

Fields of study that have been central in the agency approach of the group's research have been: mobility/migration; poverty/marginality; urbanization; religion; identity construction; conflict and violence, development and policy; technology; and reflections on the role of various groups and positions in societies, including that of the researcher. This research has resulted in the publication of various articles and books. The theme group also organized two seminars on the topic, the results of which have been edited and will be published in the summer of 2007.

#### *What has been the added value of agency-research to date?*

One answer to this question lies in the ways in which research has provided insights into how African groups and societies have been forging answers and responses to globalization, not only in reaction-to but also in the much more pro-active social formations. This relates to research that has been carried out in the fields of religion, transnational movements, and the production of knowledge and studies of coping behaviour/livelihoods. We should realize that there are many forms of 'proto'-globalization like mercantilism, the spread of world religions, of formal organizations, statehood, technologies and sciences after North Atlantic models. The studies on agency have made it clear that globalization may not have been the main change in the environment in which people live. Climate change, war and conflict may well have been as important. These are however of a different nature in the sense that we cannot label them as a hegemonic project. Furthermore, the interpretation of war and climate change at the local level often interferes with the influences from other models of thinking that are linked to globalization. Also in the case of ecological change one can speak of co-creation; in the same way as we have defined technological change: it is all about understanding the appropriation, internalization and cultural production of the social, political and economic environment.

The results of the studies on agency demonstrate an understanding of globalization as a diverse process that can be 'consumed' in different ways, and that is not inevitable. Other changes in the environment may, however, be inescapable, for instance, climate

change or war and conflict. While globalization in its present or historic forms has meant the introduction if not implementation of all sorts of Western or Eastern inventions and appetites on the African continent, an interest is being developed in those social formations that negotiate these forms in terms of an African socio-cultural understanding. Agency, in other words, proved to be much more than only the actions by an individual in response to anything global. Instead it is a constant negotiating between environment and society in changing circumstances, be they globalization, climate change or otherwise. This agency can be produced by individual actors but may also concern organisations. Hence, in the creative appropriation of globalization and ecological and political changes, the relationship between individual agency and social agency was demonstrated.

Insights from our studies have informed policy and development-related discussions. The contribution of this research to the analysis of development policies and practices did not stop at the individual contributions to specific domains of study by each individual researcher. With the study of the history of SNV, the Dutch development organization, a new domain of reflectivity on the development and analysis of development as a dynamic process in itself was introduced, following in the footsteps of people like Quarles van Ufford, Olivier de Sardan, Van Binsbergen and others who have been central in development anthropology.

#### *From Agency to Connections*

A second answer to the question about added value lies in the truism that agency is only produced in relationality; no agency exists in isolation, whether we speak of individual agency or group/organizational agency. The insight that agency is about producing relationality came to the fore most strongly in the research devoted to livelihoods and situations of extreme poverty combined with questions of social security and social capital. Increasingly the theme group discovered that the central question here is not whether agency is relational but *how and why and with whom* it produces relationality. Relationality is always in relation to, on, at or with, it contains a certain hierarchy. It is important to know who wants to relate and in what particular way they want to relate. As agency is manifested in relationality and we have to understand the how of its production in the current condition of plurality and multiplicity, the issue of connections comes to the fore.

In the creation of these connections, communication and technologies play an important role. The use and appropriation of these technologies are of course guided by agency and influenced by inequalities and power relations that are always present in societies. In the new forms of communication and organization, technologies are shaping the African social landscape, the daily life of Africans is increasingly being dominated by 'modern' technology. Currently an African setting – be it rural or urban – without a transistor radio, motor vehicle or mobile phone, and without an NGO or other development organization is quite literally unthinkable.

Research theme for 2007-2011

## **Connections and Transformations: Linking Technologies and Society in Africa and Beyond**

Africa is shaping connections in fascinating ways under intensified globalization, and this is leading to important transformations in the social fabric of everyday life. The introduction and appropriation of new technologies on which these connections are based are speeding up processes of global flows and closures, resulting in different forms and levels of transformations on various geographical and social scales. Understanding the interrelationships between the shaping of connections and disconnections, the underlying introduction of new technologies and the resulting social transformations in African societies will lead to new insights into the how, what and why of socio-cultural, political and economic processes in Africa. The research projects that are being developed under this theme will work in a comparative framework of 'Connections and Transformations'. A focus on the study of connections will also inform the group's methodologies, which are required to be as flexible as the connections are.

Studying connections and transformations as processes of opportunities and frictions offers this research programme an innovative framework in which to articulate the nature, dynamics and consequences of agency in Africa where, despite the marginality imposed by social hierarchies, power structures and a global tendency to privilege profit over people, ordinary people are refusing to celebrate victimhood. Of interest to the theme group are the transformations revolving around issues and phenomena such as the ethnicization of local conflicts through the use of Internet connections; the mediatization of religion through the use of satellite television or radio; the marketization of local produce through increased and better transport; the victimization of strangers through a de-linking of their transnational ties or sympathies; the increasing closure of social spaces that have been created by migration and the crystallization of diasporas; and the influence new religious forms and ideologies have on the organization and articulation of daily lives. However, insights into these new transformations can be deepened through historical accounts of how technologies have been introduced and appropriated in Africa since pre-colonial times. A time perspective, i.e. a focus on continuity and rupture between past and present, is essential to analyze the processes and dynamics in the interplay between technologies, connections and transformations.

By technology we refer to communication, social and organizational technologies. These are industrial technology as well as the introduction of new organizational models (management), or new social forms, such as the organizational forms introduced by specific religions and ideologies, but also organizational forms introduced by policy measures and development. These technologies are as technical as they are social and, as such, they are interpreted, internalized and used in a social context where they become part of the context and thus of society. Technological innovations may lead to reconfigurations of social relations resulting in people connecting with new relations or introducing entirely new forms of organization. But they may also lead to disconnections, to the formation of enclaves and to social isolation.

STS (science and technology studies) have stressed the insight that both technology and society are human constructs. The research in this theme group will build upon these insights. Within the theory, which has become known as Actor-Network Theory

(ANT), both human and non-human actors – or actants – were granted the ability to transform society.<sup>1</sup> The Social Constructivism (SCOT) approach stands in stark opposition to technological determinism, and emphasizes that technology development is primarily a social process. Within STS there has been a particular interest in the social aspects of design and development processes, and far less in the role of users. Recent work<sup>2</sup> has indicated that users exercise influence throughout the whole trajectory of technology development, and, as such, they are not end-users but co-producers of innovation processes (Frissen). The theme group will elaborate on these ideas and at the same time try to apply it to organizational and social technology.

The analysis of society and technology with reference to Actor Network Theory is in its infancy, and nowhere is this more so than in Africa. Based on historical and anthropological methods, and informed by ANT, perspectives will be developed that allow for the analysis of the interaction between people and forms of technology within societies in Africa, at the local, state and continental level. Accepting that technology acts in a symbiotic relationship that transforms human society, the development of technologies, as well as the ways in which they are incorporated and adapted, are to be analyzed as socio-historical processes and cultural practices. It is these processes and practices – the symbiotic relationship between people and technology – that the theme group will be investigating.

In our study of social transformations, we will concentrate on relationality, on connections. The theory of connections is still being developed.<sup>3</sup> Given the centrality of connections as a concept, the theme group envisages exploring its theoretical and ontological dimensions with a view to developing a general theory of connections. In the light of the group's commitment to multidisciplinary and methodological flexibility, such a theory should be informed by insights from different paradigms in the social sciences and humanities. The theory must, however, avoid the standard shortcomings of oversimplification and the tendency towards sterile dichotomies that fail to do justice to the interconnections of real life situations. The group plans to overcome such shortcomings by thinking through connections between disciplines, and working with researchers based on the African continent.

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<sup>1</sup> See for instance W.E. Bijker (1995) *Of Bicycles, Bakelites, and Bulbs: Toward a Theory of Sociotechnical Change*, Cambridge, Mass.: MIT Press; W.E. Bijker (2001) "Technology, Social Construction of", in *International Encyclopedia of the Social & Behavioral Sciences*, Elsevier Science Ltd. pp. 15522–7. M. Callon (2004) *Actor-Network Theory, What is actor-network theory?*, University of Colorado at Denver, School of Education, Internet document:

[http://carbon.cudenver.edu/~mryder/itc\\_data/ant\\_dff.html](http://carbon.cudenver.edu/~mryder/itc_data/ant_dff.html) Accessed 23 November 2004; B. Latour (1991) 'Technology is Society Made Durable', in J. Law (ed.) *A Sociology of Monsters: Essays on Power, Technology and Domination*, London: Routledge, pp. 103–31. J/ Law (ed.) (1991) *A Sociology of Monsters: Essays on Power, Technology and Domination*, London: Routledge. S. Woolgar & K. Grint (1997) *The Machine at Work: Technology, Work and Organization*, Cambridge: Polity Press.

<sup>2</sup> R. Kline & T.J. Pinch (1993) 'Taking the Black Box off its Wheels: The Social Construction of the American Rural Car', in K.H. Sørensen (ed.), *The Car and its Environments : The Past, Present and Future of the Motorcar in Europe, Luxembourg [etc.]* : Office for Official Publications of the European Communities, Cost A4; vol. 2, pp. 69–92.; R. Kline & T.J. Pinch (1996) "Users as Agents of Technological Change: The Social Construction of the Automobile in the Rural United States", in *Technology and Culture: The International Quarterly of the Society for the History of Technology*, Vol. 37, no. 4, pp. 763–95.; N.E.J. Oudshoorn & T.J. Pinch (eds) (2003) *How Users Matter. The Co-construction of Users and Technology*, Cambridge MA: The MIT Press.

<sup>3</sup>J-L. Amselle (2001), *Branchements. Anthropologie de l'Universalité des Cultures*. Paris, S. Flammarion. Reyna (2002), *Connections: Brains, Mind and Culture in Social Anthropology*, London, Routledge.

Connections are seen in this research programme as simultaneously linking geographical, time and social spaces. Connections are being made between individuals, social groups and institutions at different moments in varying configurations. In the shaping of connections there is a central role for technology. Combining changes at all these different levels of connections without isolating any single connection is a challenge for and will be innovative in the study of social realities as they occur, have occurred and continually evolve in contemporary Africa.

Connections are understood as being analytically distinct from social relations in the sense that relations make use of and are made possible by connections, while in their turn connections need certain social technologies to come into existence in a functional and meaningful way. By way of example; a railway line connecting different places allows for a range of (new) social relations to become established. This connection exists irrespective of these social relations, yet may be productive or transformative of them. For the railway line to become established, a range of technologies is required, both technical in the 'hard' sense of the word as well as the kind of social technologies that relate to the management and organization of this connection.

While the connection becomes pivotal in the way (social) technologies come into play as well as in the manner in which social relations are being shaped or refigured, the nature of the connection itself is also part of the issue under study in this programme. Africa has seen the rise of a plethora of new forms of connections in recent decades (new roads, railways, telephones, ICT, etc.) and it is clear that many transformations in African societies result from these developments. Whereas we are only just beginning to understand the significance of what it means for societies if new connections are established, old connections change or disappear, or certain things and places become disconnected. Another matter for study is the 'materiality' of connections. This programme will therefore also focus on the immaterial nature of certain connections and their transformative efficacy, such as connections that are established through religious and political ideologies, power and knowledge.

People have a reason to connect and to disconnect and do so in meaningful ways. These are always informed by cultural and social repertoires that are available in the specific societies participating in the connections. These processes of change cannot be understood without analyzing people's agency on the one hand, which focuses on individual and collective decisions, interpretations and reactions to the changes in their environment, nor without understanding the ways in which these interactions upon their social world come about. Individual and collective agency shows how people and institutions work together, react towards and impose upon each other through establishing various types of connections, and in the process form new social hierarchies, different (labour) relations and varied forms of cooperation, and new forms of mobility. These are created and based upon old and new repertoires of (dis)connection available to people.

Thus the concept of connections will allow us to observe and describe changes in connecting and relating as they occur in relation to the introduction of technologies. However, our research will especially focus on the processes by which these connections become 'useful'; these connections are seen as opportunities, or are given meaning by the people involved or the people who are not involved (disconnected). This is where connections turn into networks, social or political relations for instance. The theme group will make use of such old-established analytical tools as network analysis, pathways, social relations, kinship, hierarchies, etc, as far as they continue to be relevant. These models, however, have never really addressed the how, what and why of

newly created connections, and thus of social transformations.<sup>4</sup> Do we really understand what these connections are, why people, communities and institutions are searching for new connections and, if so, how they are related to existing forms of agency and social change?

### **Methodologies**

The focus on connections, flows and flexibility will inform our research techniques and methodologies but the flexibility of communications and connections may lead us to reconsider these techniques. Do the old ethnographic methods suffice when studying social realities and their complexities? Research techniques have changed too in the very communication technologies we are studying, i.e. the use of the Internet, the phone, cars and roads. But also in historical research, access to the new media is leading to an increase in the accessibility of archives and the speed at which we can gather information. The physical field of research has certainly extended to multiple connected sites, and to longer timeframes. The multi-sited, longitudinal and comparative methods that have been on the research agenda for almost a decade will be further developed in this research programme. We, as researchers, are involved in connections and need to situate ourselves explicitly, as researchers, in the field.

To develop our research techniques, we propose engaging in some team research. This is a methodological experiment that would help to formulate methodologies, develop interdisciplinarity and provide quick insights into one specific research topic showing the relationship between transformation, technologies and connections.

Within the fields of research identified above, a number of specific research projects will be defined. In addition to these, the group will work on epistemological and ontological questions related to the development of a 'theory of connections' and on methodological issues.

### **Research sub-programmes and projects**

In our concrete research projects we have chosen to concentrate on certain forms of connecting that appear to be 'new' in a certain period of societal existence and the way this is related to the introduction of technologies and how it produces social transformations. We have also chosen to build upon our experiences so far by concentrating on certain areas and trying to incorporate our former research. The different research sub-programmes are interlinked: The fields of research mobility and communication technology, materiality of technology, knowledge, and ideology/religion should inform each other. Furthermore they all work from the research problematic as defined in the introduction to the programme.

The theme group will devote considerable time to developing a theory or approach of connections and social technology; and will put energy into methodological development, i.e. doing team research.

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<sup>4</sup> S. Green, 'Culture in a Network: Dykes, Webs and Women in London and Manchester'. [www.innerasiaresearch.org/Green.Culture.pdf](http://www.innerasiaresearch.org/Green.Culture.pdf) In N. Rapport (ed.) (2002) *British Subjects: An Anthropology of Britain*, Oxford: Berg Publishers, M. Strathern (1987), 'Producing Difference: Connections and Disconnections in Two New Guinea Highland Kinship Systems', in J.F. Collier & S.J. Yanagisako (eds), *Gender and Kinship. Essays towards a Unified Analysis*, Stanford: University of Stanford Press, pp. 271-300; M. Strathern (2004), *Partial Connections*, Savage, Maryland: Rowman and Littlefield (1991). Re-issued by AltaMira Press, Walnut Creek, CA.

*Regional spread of studies:* Southern Africa (Zambia, Botswana, Malawi, Mozambique); West Africa (Mali, Cameroon, Burkina Faso, Senegal), Central Africa (Chad, Uganda),

## Sub-programmes

### *I Technologies of Mobility and Communication, New Dynamics in Spatial Relations in Africa and Beyond*

#### - Research projects:

- Mobile Africa Revisited: A Comparative Study of the Relations between Mobility, Technologies and New Social Spaces (Mirjam de Bruijn, Inge Brinkman, Francis Nyamnjoh, Daniela de Lame, Lotte Pelckmans)
- Children, Youth and Mobility (Ria Reis, Rijk van Dijk, Mirjam de Bruijn)
- Tourist Encounters in Africa (Wouter van Beek)
- Mobility of Law (Gerti Hesselings)

### *II I.C.E. in Africa: The Relationship between People and the Internal Combustion Engine in Africa*

#### - Research projects

- Social history of the Motor-vehicle in Zambia (Jan-Bart Gewalt);
- The Drive for Money: ICE Technology and the Anthropological Aspects of Money Making in Truck Farming and Gold Mining in Rural Burkina Faso (Sabine Luning);
- The Impact of Motorized Transport on the Hajj from West Africa (Baz Lecocq);
- Social History of Tamale, an African Town in Ghana through the Lens of ICE-Technology (Ntewusu Aniegye).

### *III Ideological Technologies of Connection: Religious Linkages in the Transformation of African Societies*

#### - Research networks:

- Reconfiguring the Religion-HIV/AIDS Connection: Challenges and Opportunities
- Markets of Morality in Southern Africa; Exploring New Connections of Religion and Entrepreneurship

#### - Research projects:

- Nuptial Connections: Pentecostalism, Marriage and Reproduction in Botswana in Times of Crisis (Rijk van Dijk)
- The Divine Mission of Nature Business (Marja Spierenburg, Harry Wels)
- Religion Local and Global (Wouter van Beek)
- Women, Religion and Collective Identities in African Communities in Europe (Mayke Kaag)
- Brazilian Pentecostal Churches and their Cultural Politics in Maputo, Mozambique (Linda van de Kamp)

### *IV Connections in African Knowledge*

#### - Research projects

- The Production of Africanist Global Academic Knowledge for a Modern African Environment? The Case of the Democratic Republic of the Congo (DRC) (Julie Ndaya)

- Meeting Series: African oral Literatures, New Media, and Technologies:  
Challenges for Research and Documentation (Daniela Merolla)

## **Sub-programmes and Projects**

### ***I Technologies of Mobility and Communication, New Dynamics in Spatial Relations in Africa and Beyond***

In this sub-programme we are investigating the notion of mobility as a social technology in itself and in relation to other 'hard' technologies. Mobility is an important technology of connecting; new social relations are established as well as new ideas of relating developed. How can we understand mobility and patterns of mobility as a social technology, as a linking technology? The sub-programme inscribes itself into the now well-established paradigm that takes mobility instead of sedentarity as the norm and considers mobility and being mobile in a geographical sense as one of the basic parameters of the formation of societies and social transformations (studies of translocality and transnationalism). However, these studies do not pay much attention to the realization of communication or transmission in mobile societies. In this programme we take as an explicit research problematic the introduction of new communication technologies and how they are related to old and new forms of transmission in these cultures. We are particularly interested in how they transform feelings of belonging, cultural terms and religious forms, leading to new repertoires of connections and disconnections, and to new mobility patterns and mobile communities. This will be explored by looking at the past introduction of technologies such as the motor car and the building of roads, but also the current introducing of the mobile phone and ICT technologies. This invites ethnographical work with a longitudinal perspective.

The interlinkage and dynamics between mobility, the introduction of new communication technologies and social transformations is to be researched in different social fields in this programme. The first concentrates on the changes in mobile margins, i.e. the social spaces that exist between remote areas and other parts of the world. This research will be a continuous follow-up of research in marginal areas and its people who have become connected through today's new technologies, but also in a historical perspective. The second project explores a very modern form of mobility: tourism. The third field relates to the study of children and youth. How do new forms of child mobility inscribe old traditions, and how do these new patterns of mobility influence the communication/transmission between generations? To what social and cultural transformations and continuities does this lead?

Countries of research: Uganda, Burundi, Cameroon, Chad, Mali, Angola, Tanzania

#### **Research Projects:**

a) *Mobile Africa Revisited: A Comparative Study of the Relations between New Communication Technologies and New Social Spaces (Chad, Mali, Cameroon, Angola, Tanzania)*

Mirjam de Bruijn, Inge Brinkman, Francis Nyamnjoh, Danielle de Lame, Lotte Pelckmans, Walter Nkwi

#### *Summary*

This research programme investigates the relationship between mobility, communication technologies and social space. New Information and Communication Technologies (ICT) have been hailed as an opportunity for marginalized areas to become active participants in the 'global village'. On the other hand, it is feared that the

introduction of ICT will only lead to an increase in social inequalities. Until now, little research has been done on the actual impact of ICT on social relations and the views of these technologies among people from marginal areas. This project seeks to interpret the influence of new ICTs in the context of earlier technological innovations and the history of mobility and marginality.

Research will be carried out on a comparative basis in remote areas in Africa, through surveying, interviewing and archival research. The project combines various disciplines (Anthropology, History, and Communication Studies) and several research institutes (ASC in Leiden, CODESRIA in Dakar, MRAC in Tervuren, and country-specific research institutes in Africa).

Sub-projects/Case studies:

- Lotte Pelckmans: *Traveling Social Hierarchies: Translocality and Social Change among the Fulbe in Mali and in France*
- Inge Brinkman: *The Angola Case Study*
- Mirjam de Bruijn; Francis Nyamnjoh, Walter Nkwi: *Cameroon Case study*
- Mirjam de Bruijn: *Chad Case Study*
- Danielle de Lame: *Tanzania*

b) *African Tourism*

Wouter van Beek

*Summary*

Among the many connections of African societies with the rest of the world and with each other, tourism has a special place. In African tourism it is the African locality which is connected from the outside, more than the other way around. The mobility of a half of the tourist equation determines the impact on the other, local half. Tourism is a peculiar and paradoxical connection between people anyway, but African tourism has some specific features which colour the way it links Africans with the outer world. First, the wealth imbalance between 'host' and 'guest' is marked, and the roles are irreversible, and any real reciprocity in the tourist exchange is problematic. Second, Africa knows almost no internal and very little regional tourism, so international tourism dominates the scene. Third, the power position of the various actors in the tourist industry is skewed, and the actors operate under different political and economic conditions. Africa is for tourists the continent of 'the wild', of 'pristine nature' and 'authentic cultures', admired but feared, gazed at but not participated in. Characteristic for Africa is the geographic separation of the various types of tourist destinations: wildlife, culture, beach, landscape and history/heritage.

This project researches the various modalities of tourist-host interactions, with the concept of the 'tourist bubble' as one main approach. The way this interface with the visiting and the visited is being constructed at various tourist destinations, is crucial for the connections that the local actors accrue through the presence of tourists. How do, for instance, the types of destinations co-vary with different connections of African actors with the 'North' and among themselves? What are the economic and political dynamics of tourism in each of these situations? To what extent do tourist dynamics reproduce neo-colonial dependencies and do they situate the African actors in the globalizing world of international travel?

c) *Mobile Youth and Children in Africa*  
Ria Reis, Mirjam de Bruijn, Rijk van Dijk

*Summary*

In this sub-programme we investigate the meaning and significance of the mobility of young people in Africa. In youth studies the theme of migration to urban environments and movement to areas of economic growth is central. Mobility features as a topic in the exploration of sub-themes such as youth and religion, and youth in political movements. Geographical movements of young people are primarily explained in the context of the rapid changes being experienced in African economies and society, and the young and their changing attitudes are seen as being at the forefront of these changes. Mobility is thus interpreted as a new development in the life of youth in Africa.

## ***II I.C.E. in Africa: the relationship between people and the internal combustion engine in Africa***

In Africa there is a vast field of study which has never been systematically researched or analysed. In the past hundred years this field has become so pervasive as to now pass us by unnoticed as a simple fact of everyday life, much as the clothes that we wear, and the food that we eat. This is the field of the interaction between people and the Internal Combustion Engine (ICE). Internal combustion engines are those in which motive power comes from the explosion of vapour –usually a petroleum distillate- in a cylinder, and are to be found in virtually every generator, pump, motor-car, train, boat and bus on Earth.

In the present the majority of Africans live in sprawling urban conglomerates, serviced by water, electricity, and transport, all dependent on ICE-technology. Likewise, Africa's export earnings, be they in mining, agriculture, or industry, are thoroughly dependent on ICE-technology, and deeply vulnerable to the vagaries of world markets in technology, commodities and oil. However, the pervasive interaction between people and ICE extends beyond mere economics and into all levels of human experience. Through four case studies, and informed by Actor Network Theory (ANT), the research project seeks to analyse the interrelationship between people and ICE-technology over time in African societies.

### **Research topic**

#### **Overall aim**

The aim of the proposed project is to:

- explore the socio-historical and cultural relationship that has developed between people and the Internal Combustion Engine in Africa
- examine the manner in which ICE-technology applications have shaped socio-historical processes and are constitutive for social activities and interactions in Africa.

Within the last century the societies of Africa have become totally dependent on a technology that is wholly foreign in origin, yet has come to affect all forms of everyday life in Africa. The manner in which ICE-technology has come to permeate and shape all forms of social interaction in Africa has not been studied before, and is the research objective of this project.

#### **Key objectives**

The two prime forms of interaction between people and ICE-technology (mobile and stationary applications) will be investigated within the context of four specific case studies. This will provide us with insight into the manner in which people interact with ICE, as well as, the manner in which social interactions between people are shaped by ICE.

Publication is envisaged as a series of books and articles covering the relationship between people and ICE applications in Africa at the level of the state (postdoc), urban centre (PhD), rural setting (visiting fellow), and continental (visiting fellow). An edited volume will result from an international workshop on the topic.

#### **Scientific Background**

The hidden yet ever present nature of ICE-technology in everyday life has led historians and social scientists to overlook the relationship between people and ICE in Africa. Yet,

the introduction of ICE-technology is arguably the single most important factor for change in Africa in the twentieth century. In sub-Saharan Africa, with the exception of sectors of the Sahel and southern Africa, Tsetse fly and horse-sickness made the use of draught animals impossible and dictated dependence on human power (Diamond; Ford; Kjekshus). Consequently ICE-technology was of greater consequence in Africa than elsewhere on earth, if only because it entailed a radical transformation from human powered society to externally powered society.

In dealing with ICE-technology there has been a tendency to see this as being the domain of the political and economic elite, yet its impact stretches far beyond the elite and into the everyday lives of people in the smallest villages at the furthest reaches of African states.

Though it is the stereotypical *Wabenzi* (2004), the rich Mercedes car owner, who is known beyond Africa, it is the motor-cycle, bus, mammy- and pickup-truck that truly traverse African states, and accelerated the already extensive travel of Africans. Motorised travel led to new ways of seeing and dealing with the world (Gewald 2002; Schivelbusch; Urry). The continent may possess but a minute proportion of the world's motor-vehicles (Moriarty and Beed), yet it is precisely because of the scarcity of transport that they assume such importance in so many fields of human experience.

ICE-technology radically changed African economies. Increased mobility stimulated the exploitation of neglected resources. Yet, how this affected African societies; how people anticipated and dealt with the economic possibilities; what new entrepreneurial and technical skills developed, and which came to an end, are questions that remain to be answered. Commissioned studies have sought to examine the impact of transport in the formal economy (World Bank). However very little has been done on the relationship between motorized-transport and the informal economy in which the majority of Africans make a living (Berry; Grieco; Wainaina).

More than on any other continent motor-vehicles gave form, content, and unity to states created by colonial whim. African states depend on motor-vehicles for the extension of their control; from the rapid transfer of government employees through to tax collection and border patrols. Yet, with the exception of a single highly exoticising contribution (White), no research exists on the interaction between people and motor-vehicles, at the level of politics and social stratification.

ICE-technology determines Africa in more ways than mobility alone. Its cities, in which the majority of Africans live, would not be able to exist without water pumps, electricity generators, and transport, all of which are powered by ICE-technology. In African states where the steady supply of water and electricity have long ceased to be the domain of the state, elites employ their own water pumps and electricity generators thereby guaranteeing access to potable water, air conditioning, and a whole host of other things necessary for comfortable living and status. Seen in this light, it is clear that ICE-technology is central to the issues of status and power in Africa. Nonetheless, no material exists which explicitly investigates this fundamental interaction between people and technology, let alone the manner in which people utilise their access to forms of ICE-technology to further their social position.

New technologies that developed in northern Europe and North America in the 1800s were integrally linked up to western dominance in the world (Adas). More recently authors such as Braun, Postman, and Stivers, have, as Charlie Chaplin in *Modern Times*, sought to emphasize the human dimension of scientific and technological development.

The insight, that both technology and society are human constructs, led to the development from the late 1980s onwards of theory that sought to integrate human and

non-human into the same conceptual framework. An attempt was made to devise a way of looking at the world in which the technology/society divide, that had hitherto existed within academia could be overcome. Within the theory, which has become known as Actor-Network Theory (ANT), both human and non-human actors -or actants- were granted ability to transform society (Bijker; Callon; Latour; Law; Woolgar). For Callon science and technology are more than actants that bond society together:

Science and technology lie at the heart of social asymmetry. Thus technology both creates systems which close off other options and generates novel, unpredictable and indeed previously unthinkable, options (1991: 132).

Central to Actor-Network Theory is its interdisciplinary approach to research in the social sciences, humanities, and technology studies. Aware of the fact that ANT is not a single orthodoxy or fully consistent body of writing, the research to be conducted in this project, is influenced by ANT.

Studies have consistently failed to look at the role of ICE-technology within African societies, let alone allowed for the influence of ANT. The conceptualisation, design, and manufacture of the Internal Combustion Engine occurred within the very specific socio-cultural setting of northern Europe in the second half of the nineteenth century; a socio-cultural setting that did not exist in Africa. The very design of technology may contain within it important social assumptions and political arrangements (Bijker; Latour; Law). When ICE-technology was introduced into Africa, it brought along these specific assumptions and arrangements, which could be at variance to those that existed in Africa. To gain understanding as to the development of Africa and its people in the course of the 20<sup>th</sup> Century it is necessary that we investigate the relationship between people and the technology that has come to influence and affect all aspects of everyday life.

### **Originality of the topic**

The overview above indicates that the relationship between people and ICE-technology is all-pervasive. Nevertheless, practically no research has been conducted, consequently there is an enormous lacuna in our understanding of Africa. The proposal indicates a vast, as yet untouched, territory of investigation, in which the problematisation of the all-pervasive relationship between people and ICE-technology is fundamental. The cases within the research project provide near ideal settings for studying the relationship at a number of levels and settings.

### **Significance**

The proposed project, by opening a timely, novel and relevant field of discourse within the disciplines of Social History and Cultural Anthropology in Africa, will have considerable impact. The project will lay the solid basis for further work on the interaction between people and ICE-technology in Africa, and initiate further theoretical innovation. Crucial contacts for future collaboration will be established and deepened during this project.

This research, to be conducted in the least technologically advanced continent, Africa, will bring to the fore the wide-ranging impact and effect that the introduction of technology into human society can have. This will provide us with insights into the manner in which people interact with technology. Insights that, given our own society in which technology suffuses and influences evermore forms of human interaction, bear significance beyond Africa.

### **Approach or methodology**

The identification and analysis, in four specific cases, of the manner in which people and ICE-technology interact in African societies, allows us to move beyond a mere description of technology in society, to a fuller appreciation of the symbiotic interaction and mutual dependence that exists between people and ICE-technology.

The analysis of society and technology with reference to Actor Network Theory is in its infancy, and nowhere is this more so than in Africa. Based on historical and anthropological methods, and informed by ANT, perspectives are developed that allow for the analysis of the interaction between people and ICE-technology within societies in Africa, at the local, state, and continental level. Accepting that technology acts in a symbiotic relationship which transforms human society, the development of technologies, as well as the ways in which they are incorporated and adapted, are to be analysed as socio-historical processes and cultural practices. It are these processes and practises, the symbiotic relationship between people and ICE-technology, that the research project will be investigating.

The main sources for the research will be archival. Though archives will appear to be primarily concerned with the economic and legislative aspects of ICE-technology, a store of information relating to the social will be found between the lines. Comparable research is the archival work by Glassman on popular consciousness on the Swahili coast in the nineteenth century.

The research will involve interviews in urban and rural settings. In this it will be comparable to the work of Akyeampong (1996), on the social history of alcohol in Ghana, which was based on archives and substantial interviews. In previous work the researcher has combined oral testimony with archival material, the project will seek to replicate this successful approach (Gewald 1999a; 1999b).

Essentially the research project consists of four inter-related and complementary ventures, which investigate the manner in which societies interrelate with technology in the past and in the present. This will allow for the testing of the hypotheses:

- An essential division exists between mobile and stationary applications of ICE-technology.
- Mobile ICE applications changed social, cultural, and economic relations within and between societies, and transformed ways of viewing the world, as well as ideology and religious perceptions.
- Stationary ICE applications transformed and have come to determine the economic and social structures and relations of African communities

In seeking to investigate the impact, influence and effects of the interaction between people and ICE applications, both mobile and stationary, upon human society in varying settings in Africa, the research is divided into two prime inter-related and complementary research ventures:

#### **I.) Mobile**

- a.) The social history of the motor-car in Zambia (Jan-Bart Gewald)
- b.) The relationship between motorised transport and perceptions of the Hajj pilgrimage to Mecca (Baz Lecocq)

#### **II.) Stationary**

- c.) The social history of Tamale, an African town in Ghana through the lens of ICE-technology (Ntewusu Aniegye)
- d.) The manner in which ICE-technology is used in the drive for money in rural Burkina Faso (Sabine Luning)

It is believed that in this manner the research will provide an introductory overview of the mutually re-enforcing interaction that existed between people and ICE-technology in Africa in the 20<sup>th</sup> Century.

**Innovation**

The project is innovative in that it:

- examines a field of research that has hitherto been overlooked.
- situates technology within a socio-historical and cultural setting.
- develops cross-disciplinary initiatives in research and theory.

### ***III Ideological technologies of connection: religious linkages in the transformation of African societies***

This component of the theme group on 'Connections and Transformations: linking technologies and society in Africa and beyond' comprises research that explores ideologies, religion in particular, as a social technology in the organization of social life in African societies. This problematic of religion as a social technology will be studied in the ways in which religion connects to current transformations in African societies that take place under the influence of emerging new markets, new civic and public domains, but also pressing environmental issues, the HIV/AIDS pandemic and the growing importance of all sorts of transnational movements and organizations. The research in this program will not be carried out on the basis of individual research projects by members of the ASC-staff and affiliates but will also take place in the context of two distinct yet related international research networks, one dealing with the issue of how religion connects to the HIV/AIDS pandemic in Africa, the second dealing with the increasing 'marketability' of religion in Africa whereby religion is connecting to the fields of economic power in ever growing yet unprecedented ways.

Research of ASC staff and affiliates will be carried out in: Botswana, Ghana, Cameroon, South-Africa, Mozambique, Uganda, Nigeria, Kenya, Senegal and Italy.

ASC-research staff at present include: Rijk van Dijk, Wouter van Beek, Mayke Kaag, Linda v.d. Kamp.

Affiliates include: Marja Spierenburg (Free University), Harry Wels (Free University), Ellen Blommaert (Ph.D. Univ. of Amsterdam), Catrine Christiansen (Univ. Copenhagen), Niels Kastfelt (CAS, Copenhagen).

Research projects:

- Nuptial connections: Pentecostalism, marriage and reproduction in Botswana in times of crisis (Rijk van Dijk)
- The Divine Mission of Nature Business (Marja Spierenburg, Harry Wels)
- Religion local and global (Wouter van Beek)
- Women, Religion and Collective Identities in African Communities in Europe (Mayke Kaag)
- Brazilian Pentecostal churches and their cultural politics in Maputo, Mozambique (Linda van de Kamp)

#### *IV Connections in African knowledge*

Knowledge is evidently a constituent element of all the four dimensions of our Programme ‘Connections and transformations in Africa’: material technologies; technologies of space; technologies of time; and technologies of management. Knowledge therefore constitutes an immense field of study, and only with the greatest selectivity can we make the best of our very limited institutional resources for this sub-programme.

While we will consider some definitional problems surrounding knowledge, our central theme will be that knowledge constitutes a technology of (dis-)connection and transformation in its own right.

This is particularly clear when we consider collective representations (such as belief systems, myths, ideologies, implicit major orientations of a culture) as forms of collectively managed knowledge:

- On the one hand, collective representations connect those who share them, create a self-evident, transparent world for them, and thus enable sociality –
- but at the same time they disconnect those not sharing these collective representations,
- because they locally represent (as excluded outsiders, or eminent insiders in other words as knowledge specialists) minority options in the socio-cultural situation at hand,
- or because they belong to different societies and cultures.
- Africanist research usually involves the production of knowledge across socio-cultural boundaries; from the mid-20th century, the perspective of cultural relativism has helped to negotiate the dilemmas of connection and disconnection when African knowledges were introduced and evaluated in a global environment. Even so, there is unmistakable disconnection in the sense that African knowledge is often – with the full force of northern hegemonic arrogance – disqualified in the global context:
- either because (as traditional local knowledge) it is deemed incompatible with globally circulating forms of knowledge (modern science, world religions, models of democracy and human rights);
- or because (as African contributions to global knowledge production, e.g. in science) it is considered derivative, and lacking in resources.

The development of a counter-hegemonic perspective on African knowledge therefore will be a major theme in this sub-programme. Here we will derive inspiration from the work of Valentin Mudimbe and Sandra Harding, and engage in discussion with Afrocentricity as another, radical counter-hegemonic perspective (Cheikh Anta Diop, Molefi Kete Asante, Martin Bernal).

Concretely, and with a view on technologies of connection, we will concentrate on the question as to how state-of-the-art technologies of information and communication are transforming the reality of African knowledge production and knowledge management in African universities, and integrate it progressively in global processes; one specific research project will address this set of questions. This leads to projects 1 and 2 as specified below.

But to balance this emphasis on scholarly knowledge production, we shall extensively look at local knowledge systems in Africa, especially myths. Here we pose two leading questions:

- How are myths (especially when considered in Michael Witzel's long-range perspective, across millennia, and across continents) examples of connections, disconnections and transformations in the field of knowledge?
- How are these traditional knowledge systems affected by the introduction of state-of-the-art technologies of information and communication: are they eradicated by the latter, or do these afford them a new lease of life, under a different format?

This leads to the following projects:

- The production of Africanist global academic knowledge for a modern African environment? the case of the Democratic Republic of the Congo (DRC) (Julie Ndaya)
- Meeting series: African oral literatures, new media, and technologies: challenges for research and documentation (Daniela Merolla)