Following Actors: Enrolling the Vocabulary of Actor Network Theory to Talk about Internet Banking in a Remote Indigenous Town

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Abstract

Actor Network Theorist, Bruno Latour, advises Actor Network Theory (ANT) practitioners in the pursuit of 'new, unexpected actors', to travel slowly and take unfrequented roads. In this article, this advice is taken seriously in Ramingining, a remote Indigenous town in northern Australia. It follows a family endeavouring to get access to money in their bank accounts and in so doing allows a mutual and enlightening interrogation between both Ramingining and ANT.

Introduction

Ramingining is a remote Indigenous town in north east Arnhem Land, in the Northern Territory, Australia. For four years it was also my home, while I taught at the school, grew friendships, fell in love with a camp dog, and studied hard to learn a local language. I left Ramingining at the end of 2005, but had plotted my return, this time as a researcher with the time (and permission) to get involved with people in the context of an issue which I had become aware of over the years I had lived there: the issue of access to computers and the things computers can provide access to, like internet banking. Another issue which concerned me was the idea of research as a hazard. I knew it was possible to use it as a means to inure myself against the complexities and challenges which often parade as messes in towns where people endeavour to negotiate very different worlds. Was it possible to be a researcher in such a situation and

not try—as the Actor Network theorist John Law says—to 'distort it into clarity'? In *After Method: Mess in Social Research*, Law seemed to be saying, yes (2004, p. 2). Moreover, he and fellow Actor Network theorists have said a great deal about what we might be doing usefully in such situations and they were adamant that the first step was to set aside foundational dichotomies—things vs people, technology vs society, white vs black—and to try to follow the actors, all and any actors, to see where they lead, and what they might tell us.[1]

While Law and his colleagues were developing these ideas in the 1980s, translating the agencies of Portugeuse ships, French mud and scallop fishermen into the iconic stories which still act as lessons to new students of ANT today, this work was seen to be meticulous and slow (Callon, 1986a;

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1 These ideas were developed in a prolific decade of writing. Latour (1987) is a helpful early text and Law (2008) provides a good recent overview.

Latour 1983; Law 1987). As Latour said, many years later:

> When you wish to discover . . . new unexpected actors . . . which are not yet bona fide members of 'society', you have to travel somewhere else and with very different kinds of gear. . . . There is no question that ANT prefers to travel slowly, on small roads, on foot, and by paying the full cost of any displacement out of its own pocket (Latour, 2005, pp. 22-23).

It is not language which sounds familiar in talk to do with the fast moving and swiftly changing entities which now constitute our modern socio-technical worlds. And if slowness is strange, complete stillness is anathema. It is the othered nothing between events. Appelbaum says otherwise.

> No theoretical construct, the stop is an actual moment, the moment of poise. . . . It shuns the spotlight yet exerts a definite and important control over what takes place. Furthermore, it gives us a key to a deeper engagement in a meaning that unfolds our lives. For it offers a choice. (Appelbaum, 1995, p. xi)

This article takes seriously both of these insights. It accepts the need, at times, for slow methods; to travel by foot on small roads, and sometimes even to stop. Annemarie Mol also managed to evoke this necessity in her account of the curious object, 'atherosclerosis', in a Dutch hospital (Mol, 2002). In the same way that she induces us to slow down to the pace of weary, painful legs trying to climb a set of stairs, we too have to make this commitment in order to visit the complex socio-technical site which was the Ramingining I returned to as a researcher in 2006. In doing so, two interlaced aims become possible. ANT's gentle but persistent following of actors allows us to see something of the complexity of a remote Indigenous town in a modern world, where computers, mobile phones and encrypted codes are as much a part of daily life as ancient customs for ushering young men into manhood. At the same time the town, its

people, computers and customs will do something for ANT, in that every evoking in turn of its vocabulary, concepts and methods is an inherent test. If ANT passes the test it is thereby just a little different from its former self, in being richer, stronger and in having travelled.

In this case it has travelled to Ramingining, a town in north east Arnhem Land, where it has become a participant in a research project documenting the life of computers there.[2] Ramingining is home to 700 Indigenous Yolŋu and fifty non-Indigenous people, locally known as 'Balanda'. The latter are employed as teachers, nurses, mechanics, book-keepers, pilots and managers of the various institutions which nowadays are integral parts of such towns: the school, clinic, stores, workshops, etc. The list does not generally include researchers. At the time of the story that follows I lived in a caravan and ran an internet cafe in an adjacent tent. I had also participated in the reestablishment of a library/computer access service known as the Knowledge Centre. The much longer stories of the emergence of these entities, remarkable in themselves, are told elsewhere (Nicholls, 2009).

In this article, in the story that follows, I take the advice of both Latour and Appelbaum. The story will stay close to a family in Ramingining, as they endeavour to get access to money in their bank accounts, and to negotiate the choices inherent in every 'stop'. It is an opportunity to explore the affordances of ANT in a complex socio-technical situation (which it has never before visited) and observe how they affect each other.

The key human actors in this story, Glen Dhamarrandji, Daisy Gaykamangu and I are present using our own names. Other human

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2   This article is adapted from Chapter 3, 'Following the Actors: Glen and Daisy', of my PhD thesis (2009). My introductory chapter, 'Following Actors', provides an over-view of the ANT vocabulary explored in this article. Note that at the very heart of ANT is the acknowledgement of the role of all actors, whatever their (im)materiality, so this has to include itself; the whole network of writers, stories, actors within those stories, and so on, which constitute and perform what we call ANT.

actors are participating through pseudonyms.[3] The account begins with a glimpse into a day mid-way through the story.

4 June 2007

Glen and Daisy are waiting for me at the Knowledge Centre. It is a small portable building located behind the derelict ruins of a former Council Building. I unlock the door with a key attached to my belt. I turn on the light and the air conditioner and they transform the small, dim, stuffy space. Glen comes in and sits down, Daisy following but sitting further from the computer. I take the lead from the phone and plug it into the back of the laptop which is sitting on the table. I open it and switch it on. It blossoms into life, but without that little tune. It is an old IBM with an older version of Windows and no built-in speaker. As the internet screen appears we slip into a procedure with an albeit brand new familiarity. Up comes the Westpac screen, the prompts for the customer number and password. Glen has unfolded a small piece of paper which we have both written on, with his numbers. I have encouraged him not to write his password on the same piece of paper and we have torn up copies of it written on other bits of paper, but he has written it anyway. We log on and easily follow the steps. His daughter Wamuttjan's account is in his list of payees and we quickly transfer money from his account to Wamuttjan's.

The whole procedure, the internet, the computer, the Knowledge Centre space, and we, too, have all become well-behaved actors in a scene we are re-enacting, and we know how it goes. All the bits have worked as we expected and so, although we feel a little trepidation and then relief, there has been little energy expended. The goal, moving the money to Wamuttjan's account, has stayed in focus. No-one tells me, this time, what the money is for.

On another occasion, with some excitement, they had told me it was for a son's initiation ceremony, his *dhapi*. Nor do they spell out how they will get the money from Wamuttjan's account, but it is a Traditional Credit Union (TCU) account.[4] We have a TCU branch in Ramingining, our only bank outlet. They can withdraw money there. Or at the ATM (Automated Teller Machine) at the store, because Wamuttjan has a card for this account.

But why were we just a little nervous and relieved when it worked? That is because it wasn't always so. Today all the actors (all the bits and pieces, all of the people and things) have behaved predictably and together enacted what Latour would call an intermediary. Last week we would have had to describe them differently, as mediators.

Here is Latour again.

> An intermediary, in my vocabulary, is what transports meaning or force without transformation: defining its inputs is enough to define its outputs. . . . Mediators on the other hand, cannot be counted as just one; they might count for one, or nothing, for several, or for infinity. Their input is never a good predictor of their output; their specificity has to be taken into account every time. . . . No matter how apparently simple a mediator may look, it may become complex; it may lead in multiple directions which will modify all the contradictory accounts attributed to its role (Latour, 2005, p. 39).

The week before all this we were in a tangled web of mediators.

Friday 25 May - 10.20 am

Glen, Daisy, Wamuttjan and baby Ŋarritjan come to my caravan. They indicate they want to transfer money

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3   Glen Dhamaranydji and Daisy Gaykamangu chose to be identified by their own names in this research, as they were aware that the arduous means by which they got access to their banks accounts, using computers, was an important story. The pseudonyms used for other Yolŋu are mälk or 'skin' names.

4   TCU specialises in providing banking services to remote Indigenous communities in the Northern Territory.

from Glen's Westpac account to Daisy's TCU account.[5] As I don't have a fax machine—the usual means of requesting bank transfers in Ramingining—I suggest they go to the Women's Centre.

But it doesn't end there. They linger. They have more to tell me and at some stage I recall, Westpac doesn't do fax banking. I find out Glen has a three-digit telephone banking access code—which could be used to get an internet bank access code online—so I realize I may be able to help. We go over to the Knowledge Centre and I try to use Glen's three-digit code to register him but we get no further than the first step. The registration program rejects his three-digit code. We have to phone a number given on the screen. I tell Glen and Daisy the phone costs fifty cents and they say they will bring the money later. I write it down.

On the phone, we learn that Glen has failed a phone ID process at some stage and has been suspended from telephone banking. But the person on the line is helpful. They suggest calling his branch and we are given the Nhulunbuy Westpac number. We get Jan, another helpful person, and she tells us we can send a fax after all, with all the ID details we can muster, and his signature, and put our request in writing. I prepare a fax for them and include his driving license number. I add my own mobile phone number as a contact number.

At 3.30pm Jan calls us. She can't find Glen on the records. Does he have another name? What is his customer number? I realize we left that off the fax! By the time we get back to her it is close to 4.00 and it is Friday. TCU is closed for the day and the week. Monday, says the family, and moves away, slowly.

That evening I get a delayed voicemail on my mobile. Jan says there is another problem with account numbers. The one Glen has given isn't working.

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5   Westpac is one of Australia's largest banking institutions.

Saturday 26 May - 9.30 am

Glen and Daisy come to the van with a dollar for the phone calls. It is all in five and ten cent pieces. I tell them about Jan's message; that we need to call on Monday. There's a problem with the numbers. I say, 'When your ID is fixed I'll help you to get an internet banking access code. Then it will be easy.' But I remember other stories and so I hedge my optimism and add, 'You may have to go to a branch.' I don't remind them of what we all know: that that would mean a trip to either Nhulunbuy (400km east) or Darwin (560km west).

Monday 28 May - 9.30 am

Daisy, Glen, Wamuttjan and Ŋarritjan arrive at the van. I call Jan on the mobile and she says she will try the account number again and call me if it doesn't work. I make cups of tea and discover I have met Glen's mother. I know her from computer workshops at the university. We are excited to find these connections. Glen tells me more about his family and their country.

11.00 am—Daisy and Glen return to the van. They tell me the money hasn't gone through. I feel a stab of disappointment, recalling the length of other sagas. Glen suggests it takes two days, and we grasp at straws. I get cold water and we sit and talk about their son whom I used to teach, the importance of being strong in Yolŋu Matha and English and about the banking problems people are having. I say that internet banking may be the solution and that we will get Glen's access code at the Knowledge Centre this afternoon. Daisy indicates that she has a new three-digit code, too.

1.00 pm—They come to the Knowledge Centre and I try again to register Glen for internet banking, but his three-digit code is still not working. We call Jan and she is busy; she will call back. When she does, she tells us that the suspension on the three-digit code is a different issue from the faxed transfer request. She will have to organize for it to be lifted and get a new code and fax it. I give her

the school fax number as we don't have one at the Knowledge Centre.

Meanwhile Glen and Daisy remind me that Daisy has a three-digit code too and make signs that we should work on her account. She gets out a little piece of paper with what looks like a customer number and a three-digit code. I am sceptical. We have worked fruitlessly on Daisy's account in the past, but they tell me it is a new number. They get out a bank statement for the account dated March.

I enter the numbers into the online registration page, and they work. We proceed to the next step. It's a question for which Daisy needs her Handy Card[6]. She has six cards with her but not the right one. She will need to get it from home. I do some rapid mental calculations and offer to drive her while Glen minds the Knowledge Centre.

As we drive, Daisy, who almost never speaks in my presence and speaks little English, tries to tell me, 'I don't understand much English.' I try to think of a way to say, 'Me too,' in Yolŋu Matha, but let the comfortable silence state the obvious.

When we get back to the computer we have been logged out and have to start again. I have a lot of trouble getting back to the starting screen, and when we finally get to the questions page, this time it is a different question. Daisy doesn't need the Handy Card number anymore but needs to know her balance! I ask them if the statement is the last one they got and tell them that we need to know the balance exactly. If we get logged out again I am afraid Daisy's code will get suspended again. They have a quick exchange and tell me the balance; a larger sum than that on the statement. I am nervous. I put in the amount and it works again. We start to choose a password and alas, I have forgotten to prepare them for it. We have a discussion which we have to hurry, because we don't want to get logged out for delaying. We

decide on a dog's name with the numbers 123. We get through the process, but the screen then tells us it was too obvious. We try again, but the cursor, which has been increasing in unreliability, chooses this time to go crazy. We can't get through the password selection which requires pointing and clicking on numbers and letters. The screen freezes and tells us we are blocked. I quickly change to another laptop and start again but we are blocked.

In the middle of this, Jan has called us back. She has managed to organize the transfer for Glen and it will go through the next day. I don't pay attention to the details and thank her rather too hastily because I want to ask about our new problems: Glen's three-digit code and this problem with Daisy's password. She tells me she will fax Glen's new code but for Daisy's problem we have to call the internet banking number. We get through to Bronwyn and find she is helpful too. We are on a good run!

She has to speak with Daisy. We have been through this before. On that occasion the woman at Westpac overheard Wamuttjan helping her mother say her date of birth and had refused to ID her. It had set in train a futile attempt to get her signature accepted. So with my heart in my mouth I tell Bronwyn that Daisy has real problems with speaking English. She reassures me that if she can just get through her ID she will be able to give permission for me to speak for her. She also tells me she will ask her for her access code, so with Wamuttjan on one side and me on the other, and her access code on a paper in front of her, I introduce her within Bronwyn's hearing and give her the receiver.

Daisy looks nervous, almost trapped. She says, Hullo! Hullo! and hands the phone back to Wamuttjan who hands it to me. Bronwyn is understanding. We try again, with me asking the question. Daisy holds the paper away, trying to read it. Wamuttjan starts to say it quietly and I signal for her to stop. Remembering! Somehow she gets to say the three numbers and gives the phone back. Bronwyn accepts it! We also have to

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6   Handycards are one type of card issued by banks in an effort to promote access to modern banking facilities.

get her to say Yes, to the question, Can Anthea talk for you? She says, YES! Her body language hinting at the courage it takes.

Bronwyn gives us a temporary password and we get through the rest of the procedure, despite the hurdle of the Terms and Conditions. I have learnt to say, You can read all of this, about the bank rules, or you can trust them. Everyone says, Trust them! And we click, Accept.

But Daisy is on her feet at this stage. It has gone on too long. When we finally get through to her account only Wamuttjan is at the computer with me. It shows the amount that they knew was there. Daisy and Glen come back into the room with little Ŋarritjan who has been handed from arm to arm throughout this long procedure. They seem pleased but dazed. Glen is wondering about the fax. And they also add that word, 'Transfer.' That's what it is all about. They want to transfer money into Wamuttjan's TCU account. Yes, I say, but then my heart sinks. Quickly I go into 'Manage Your Accounts' and check the daily transfer limit. It is set to zero. Damn! I had forgotten. I set it to the next level, click submit and start to try and explain: there is one more step when you use Westpac internet banking. You have to set the daily transfer limit and that involves waiting in the mail for an activation code! One more number! We need one more number. It will come in the mail. Maybe Friday, maybe Tuesday.

I try hard, but I feel defeated. Their body language says they are tired and they are turning towards the door. I try to detect signs of understanding. I do detect signs of acceptance: that it is in my hands and that OK, they still have to wait. They ask about the fax again and I suggest they go over to the school. They come back ten minutes later. It hasn't come. I tell them I'll check later and I try one more time to summarize where we are up to with Daisy's account and Glen's transfer, but everyone is turned to go. The baby in arms has been incredibly patient. They all leave together.

4.15 pm—I see Glen and Daisy on the road outside the school. They are still looking for the fax and it still hasn't come. I say I'll check. That night we end up at a ceremony at the house of family whom we are all close to. I can't recall if I tell them then or not, that the fax still hasn't come.

In this article I can say, 'And so we continued in this vein'. The reader may be tired and relieved to jump to the end of the story, but they are not yet exhausted. Daisy and Glen have no such choice. They cannot get around the obligatory passage point (Callon, 1986a) which still stands between them and their money, and what it will buy, including food.

The story continued to unfold, day by day throughout June. When we finally managed to access Glen's account, he and Wamuttjan grew in confidence as they transferred money from his account to accounts they had access to in Ramingining. But we waited in vain for the letter with Daisy's activation code. Finally we phoned and found her address was registered at another town, another remote community where Daisy has close family. The activation code had been sent there. A new letter was sent. When it arrived we used the code to activate her daily limit and a progressive process of transferring her money began, as with Glen's, into accounts they had access to.

The family's relief was palpable and they became frequent users of the internet cafe and the Knowledge Centre. But their harrowing story of getting access to funds in a remote town such as Ramingining was not by nature unique and as I scribbled furiously in my field notes to keep pace with these personal dramas, I also toyed with the concepts and vocabulary of ANT, 'testing' it for its usefulness in telling these stories. If I was unlocking a door, to which I alone had a key, or more dramatically when I couldn't open a door (or an account) because a key (or password) was lost, I was grateful for an antidote to the frustration which I would have felt if I hadn't recognized the agency of keys and numbers, if their materiality and

'technicity' meant that they were only a nuisance and that the 'real' action here was somewhere 'social', in human failings perhaps. If only these annoyances were out of the way could we get down to business! Instead, while practising the language of ANT, I could parlay with these players in a way which somehow redeemed them, reinserted them as actors worthy of serious consideration.

Translation

Callon has described what was happening as a series of translations within actor-worlds (Callon, 1986b, p. 32), where whole networks, reduced to apparent single entities may be translated into new networks, transforming each other. But while it was helpful (if perhaps trivial) to describe what happens at a locked door in translation terms, there was nothing trivial nor innocent about the banking stories like Glen and Daisy's, which occupied so much of my time and that of the residents of Ramingining. They were veritably throbbing with implications. Banks have translated 'holus bolus' into their own networks other functioning networks: whole worlds of computing and telecommunications, and the idea of a number as an identity. Westpac, in this story, also translates Glen and Daisy into little suites of numbers: a birth date, a remembered balance, a customer number, a three-digit telephone code, account numbers and internet banking passwords. Not just the numbers but the relationships between them are crucial. Glen must be able to produce them all, at one time and in one space, even though that space is only a functional space. If he can, the bank recognizes him as Glen and equates him with his money. If he passes to them numbers which the computer equates with Wamuttjan, it can then translate the numbers (representing amounts of money) in their computers into numbers in another bank's computers, which appear on the screen of the computer in the TCU room in the Council building here, where young women have been trained to see and recognize those numbers and translate them into cash in hand. They hand it

out through the grill, which enacts the space in which cash can be kept safely in a place hungry for it. That cash is then translated at the store into food.

(Im)mutable mobiles

This is putatively a story of immutable mobiles, of objects created strategically to travel, supposedly unchanged, across other changes whether they be changes in geography or scale or discourse (Latour, 1987, p. 227; 1990, p. 26). The people on the phone at Westpac, the Jans, Kerrys and Bronwyns, accepted the equivalence the numbers represented to them. We were in our little Knowledge Centre space behind the devastated old Council building with all the stories it entailed for us. They were sitting in some office in Sydney or Hobart. The numbers travelled, indifferent to this geography and scale. Jan et al went through procedures to convince themselves the equivalence was valid. 'We' said we appreciated that, that we understood it; I spoke on behalf of Glen and Daisy. I tried to translate the idea of security into terms I thought they would understand. But we too were translating in another way. The numbers were recorded on various bits of paper, transcribed from old much folded pieces to new sheets, and stored in purses and wallets. (In some stories, just in pockets and hands or heads.) They were recited and rehearsed and discussed.

But in this way, while they were presented to the bank as the immutable mobiles which would faithfully translate identity into a form the bank recognized, they were for us potentially very mutable mobiles (de Laet & Mol, 2000), in more than one way. On the one hand we were aware of their fragility; they could disintegrate, lose their potency, their ability to identify. They could get lost, forgotten, transposed. (I saw that happen quite often; two numbers reversed, say.) But more importantly, the translation at this end was not number equals personal ID. It was shared family ID. The numbers were commodities with exchange value here. Certainly banks and villains recognize this potential too and hence the massive

architecture of the computer security networks, but in Ramingining that commodity status is not seen as villainous per se. Potentially problematic, yes, and people have numerous and fascinating strategies for that, but not the ones banks envisage with their campaigns to encourage people to guard and secretize their passwords. Here people do other things: they create multiple accounts and perhaps keep one number 'unannounced', or deliberately destroy the card associated with that account. Alternatively, they may employ ingenious ways to get the bank ATM to retain a card, temporarily.

Material Semiotics

The terms 'material semiotics' and ANT are often used interchangeably. It would be better of course to be more precise, as Law is, when he calls ANT 'a disparate family of material-semiotic tools, sensibilities and methods of analysis that treat everything in the social and natural worlds as a continuously generated effect of the webs of relations within which they are located' (Law, 2008).

I saw Daisy and Glen, throughout this story, as determined and optimistic and yet always at a disadvantage. As a team, they trudged back and forth between their home, my van and the Knowledge Centre, day after day; their only weapon their persistence and the balance they knew was there in the bank, and their faith in me; their belief that justice exists and that it can be asked for with dignity. They were created mendicant by their relationship to numbers, their differing skills in English, their limited access to phones and understanding of the protocols of banks, signatures, numbers and computer language. All of these actors in turn came out of those transactions as powerful, as arbiters of what happened next . . . and yet, the four of us also managed to reshape some of them. As we sat around Daisy and the phone, miming to her the day she had to pass her phone ID, we did something we had failed to do previously. We didn't take away from the bank the role it

performs every day, all over the planet, which every client reinforces as they engage in the protocols. However, we did 'undo' that assemblage just enough to see something of its creation and what holds it together, and to make it work for us. Certainly, at other times we undid it enough to render it useless.

This semiotic relationality was everywhere of course. The network and our compliance didn't just give Daisy and Glen their temporary dependency, but it also gave those numbers, otherwise just meaningless strings, their powerful agency. It gave the computers their usefulness; me, my ability to 'help', and so on.

The most obvious of the non-human actors here were the numbers, and the computers and all their supporting physical networks, but at every touch of these tangible elements we ran into people. And every encounter with people involved us with more things, both tangible (purses, bits of paper, pens, tables and chairs, doors and keys, cars) and intangible. Languages were obvious actors, but motives too became visible: the money was needed for the ceremony, they said. Sometimes, in other parallel stories, people said things like, 'Anthea, we're hungry!'

In this story there is an insistence on process and its precariousness. As Law puts it, 'all the elements need to play their part moment by moment or it all comes unstuck' (Law, 2008, p. 146).

Certainly there are networks around which have more flexibility than this one, and beyond ANT 1990, the 'fold' began to include them: networks that behave more like waterways. But this particular network demonstrated this dependency on each link, again and again. It is a classic heterogeneous actor-network. (Law 1987) Then too, it demonstrated that parts of networks can be remade. As Latour meticulously illustrated in *Science in Action* this usually requires phenomenal work, (Latour, 1987) and in our story too these times of reshaping were laborious and time

consuming. It took weeks, courage, coaching, practice, before Daisy and her team were able to convince Westpac that this team was her, Daisy, customer number di-di-di-dah.

Obligatory Points of Passage

It is also a classic story of action at a distance, through the agency of immutable mobiles and 'obligatory passage points' (Callon, 1986a, p. 205),[7]of how the scales of large banking corporations and tiny, tinny, outposts at the end of a phone line, become irrelevant, through the intermediation of the well behaved assemblies of computers and internet service providers and understandings and practices to do with numbers.[8] It is the agency of architecture. A few of the elements could have been moved a little in time or space, but most of what we did would have been impossible if a piece or a sequence had been swapped around. We were a story, not a lexicon of concepts.

And we were never far from the political. It takes very few links in the network to reach events, people, things, which have been active in setting the scene for the disempowerment and the dependency of Daisy and Glen on the one hand, and on the other the sense of remoteness and the fragility of the chain I had to tap into to 'help' them. At any point of that story I could have veered off on other legitimate trails, revealing the way the Council operated, the events which had left us with such a minimal internet access point, the events and people and things which had created the Council in its present state.

New actors have entered the story here. They are not people or material things but discursive concepts:

disempowerment, dependency, remoteness, fragility. By giving them a name—by allowing them—I give them a role.[9] I have enlisted them. I have translated a set of events into a new potential intermediary (or mediator) in the story. They immediately lead us to the periphery of an arena which has another discursive label: political.

ANT was always adamant that it was about 'how', as opposed to 'why'. How networks held together, shaped their components; how they could make a centre and peripheries. In short, how differences get generated in a semiotic relational logic (Law, 2008, p. 146).

I was able to watch this banking story, under the influence of ANT, doing this. By going through the actions described here; by acting out the translations:

this number = this person

these numbers = money = food

this space in the Knowledge Centre = an extension of Westpac

this computer screen = Westpac

this room which we opened with a key = a safe space

this action here on a computer screen = a transfer of money somewhere else

this person (Anthea) = someone who can speak for this person (Daisy)

this set of actions = dependency (or perhaps, independence, immediacy, convenience).

We were all performing the inherent differences in this story, the centre (Westpac) and the periphery (Ramingining).

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7   Callon uses this term to describe the effect of networks designed to control actors in particular ways; to channel their movements through particular points of geography or behaviour (Callon 1986a).

8   Latour calls the process of translating into numbers, of creating 'a world inside which facts and machines can survive', metrology (Latour 1987, p. 251). He also develops the idea of scale in his work on Pasteur (Latour 1983).

9   Take the concept of 'remoteness' for instance. If I allow and use it, I am acknowledging a reference wherein nearness and remoteness can be judged. Ramingining was never remote in Yolŋu terms.

Rejecting dualisms

ANT always insisted that it represented an erosion of foundations, that is, of dualisms such as human-nonhuman, big-small, macro-micro, social-technical.

> (They become) effects rather than explanatory foundations. This is not to say that they are not real—they may indeed be <u>made</u> real in practice— but they offer no framework for explanation (Law, 2008, p. 147, emphasis in original).

In this story too, (and the larger story it was embedded in, particularly the story of the Council) people and things had power to undo the networks: keys, leads, numbers, signatures, alliances, moods, beliefs, spaces.

There were big banks and small numbers. Size didn't matter. As in the games of solitaire which had proved to be our computers' most successful acts of enticing, it didn't matter if the missing card in an otherwise complete sequence was a Queen or a two. Either would bring the game down.

Concepts of closeness and distance were also eroded. Banks translated people in their homes into the vastness of the internet, numbers represented people at a distance; banks spread out and became obligatory passage points for storing and moving money.

But perhaps the most resilient of the explanatory, foundational dualisms is that of the social versus the technical. In this story it would be easy to slip into this divide. If a person loses or withholds a key, or forgets a number, it would be easy to argue that the human is the real actor here.

In response, ANT has suggested otherwise. If a person forgets a password, but not their classificatory relationships, then the number has contributed its own affordances—a difference— into the transaction. The person was not the only actor.

Stability—After Dualisms

But if foundations have been eroded, what endures? ANT has steered its work away from 'why' and eschewed foundational, stable agent explanations, but how does it deal with continuity? Is it going to endlessly tell stories and not notice the themes? Law asks what might replace the foundations that have been so cheerfully undone (Law, 2008, p. 148)?

He says that ANT answered this question by addressing architecture and configuration but insists on only 'relative stability', which in turn can be located in the material (in the end it is the configuration of the web that produces durability, not the materials themselves), in the strategic (deliberate strategies to create durable networks), and in the discursive (discourses defining conditions of possibility) (Law, 2008, pp. 148-149).

These are apposite concepts in Ramingining— ways to translate actors and activity which feel right. The configurations of people and things and their stories were indeed relatively stable throughout the story told here, though we were able to demonstrate how, with a great deal of work, we could shift some of the relationships. And how easily, carelessly, the repetition of certain actions (like the losing of numbers) acted out and stabilized one set of configurations (which were labelled with words like dependent, helping) and undid others (the chain of events which could result in money being withdrawn).

We were in no doubt that the configurations of parts assembled in the computers were essential to their durability, as were the procedures which constituted that of the banks. And the strategic intentions, the creation of the obligatory passage points which the banks represented, were never questioned. However the discourses which act to stabilize those configurations and strategic arrangements within one setting were shown to be far from stable here in Ramingining. The understandings (the stories/ discourses) behind concepts such as personal

ownership, material value, the power of secrecy, were all destabilized in these stories. Whatever their role in the intermediary behaviour of banks in, say, Darwin, in Ramingining the network is stabilized by different stories, different conditions of possibility. In Ramingining it is possible to pass passwords around, to be different people over the phone. It is possible to tell these stories as epistemological aberrations in the fixed ontology of western banking. Or to find evidence that ontology is never a given.

Performance

During the ANT 'diaspora' post 1990 (as celebrated in Law & Hassard, 1999), several themes developed into strong leitmotifs. 'Performance' was one of these. It was not a new concept; it is inherent in the material semiotics at the heart of ANT and we have already watched Glen and Daisy, the banks and computers performing the heterogeneous actor-network we called internet banking in Ramingining. But the idea grew in its influence and significance. Law actually calls it a 'seismic shift' (Law, 2008, p. 151).

> Crucial to the new material semiotics is performativity. We are no longer dealing with construction, social or otherwise: there is no stable prime-mover, social or individual, to construct anything, no builder, no puppeteer. . . . Rather we are dealing with enactment or performance. In this heterogeneous world everything plays its part, relationally . . . (all the actors) assemble and together enact a set of practices that make a more or less precarious reality (Law, 2008, pp. 150-151, emphasis in original).

This understanding has particular cogency in a place where so much is performed, not just in the sense being used here, but in the particular popular sense the word carries. Visual art and performance (in this case music and dance) is used to keep the Yolŋu world intact (Tamisari, 1995). It is an easy move to shift focus to the even more complex and heterogeneous community by adding

in the Balanda and the Government institutions which bring them here, the houses they live in, the services they work through (but which equally enable them to be here). Obviously, without the daily exercise of the relations between all these 'new' elements and the Yolŋu, the town, the 'community' wouldn't exist, but its precariousness and fragility is demonstrated daily; you only have to walk into the space (the shifting space) which gets called 'the Council', where expectations regarding the roles one plays to keep something recognizable as a 'Council' are continuously rubbing against each other, like a swirling tide in a pool where certain life forms develop the capacity to cling onto other more stable things.

Mail spreads and spills across tables and onto the floor. Telco and bank logos (usually meaning 'important') get stamped with footprints. People sit here and there on a continuously moving tide of chairs. Kids wander into spaces where finances are dealt with. A phone has a sign: DON'T USE WITHOUT PAYING $5. But it is used anyway. Brochures and newsletters in a language local people don't read spill out of a display case. Someone in the Community dies and tips the balance. Suddenly there is fighting outside; people carrying knives and axes and spears as symbols of grief, fear, determination to protect and avenge. Law's words (his 'precarious reality') could have been generated here, and of course that is a proof of their veracity or usefulness.

Co-Constitution

We have followed Glen and Daisy as they have endeavoured to get access to their money and in the process encountered the plethora of heterogeneous actors ANT predicts or rather prepares us to notice. We have used the language of ANT to watch these actors being translated, enrolled and caught up in performing the heterogeneous network we recognize as internet banking with its computers, users and money, within the larger networks of the town and its Council, of telecommunications providers and

banks. Akrich takes up this idea of performance and emphasizes that these performances are actually and always a co-constitution. We can watch the way humans and objects define each other, she says, and indeed make each other.

She directs us to question:

> . . . the extent to which the composition of a technical object constrains actants in the way they relate both to the object and to each other . . . [and] the extent to which [the human actants, in turn] are able to shape the object, and the various ways in which the object may be used (Akrich, 1992, p. 206).

But if we want to actually see this adjustment taking place, to describe it, she says, 'we have to find circumstances in which the inside and the outside of objects are not well matched. We need to find disagreement, negotiation, and the potential for breakdown' (Akrich, 1992, p. 207).

Akrich predicts that at times like this we may see various outcomes. We may see objects being changed or even dismantled. Or we may see them at work changing their users. She says that not only may new technologies lead to new arrangements of people and things, they may even generate and 'naturalize' new forms (Akrich, 1992, p. 207).

Was this evident in Ramingining? Did I observe the computer adjusting to Yolŋu? Did I observe Yolŋu adjusting to computers? I certainly was there at the 'right time'; a time when introductions were new, when there was ample 'potential for breakdown', for mechanisms of interaction and reciprocal adjustment to be laid open. But what did I see?

I saw Glen and Daisy coming up against the 'inscription' (Akrich & Latour, 1992) in the assembly of banks and computers which we called 'internet banking'. This inscription read: You will present as an individual; you will identify yourself by numbers and codes, and you will guard your identity. You will mistrust others.

I saw Glen and Daisy created mendicant in this relationship, but I also saw them utterly determined to learn the script, and persistent, day after day, in their efforts. I saw that while they did not resist the inscription in the computer, they nevertheless subverted it. They found out its weaknesses. They presented as individuals with number names but they acted as a family. As a family they coached each other and shared their information and money. They acknowledged that some people are untrustworthy and thus understood the role of passwords, but went on trusting each other. They also demanded that the banks speak to them, if not in Yolŋu Matha, at least in English.

This negotiation took a month. Day by day the computer in its role as an internet bank and Glen, Daisy and their daughter put each other through the trials by which they came to know each other and made the adjustments which eventually settled into a semi-stable working object, by means of which Glen, Daisy and their family continued to get access to their money in the months that followed.

These adjustments—enabling this stability—hadn't all been made by Glen and Daisy. I also had the opportunity to watch the bank-computer alliance as it negotiated this relationship and many others over the months of this research. While the computer steadfastly held to its inscription, You shall present as an individual identified by a code, the banks made more adjustments. Despite their wholesale annexation of computers and computer language (the language of databases and algorithms) in their creation of internet banking, they had had to maintain and even perhaps to 're-insert' people into their interactions. The many hours we spent in Ramingining in 2006-2007 talking our way through transactions with bank staff must have been a small fraction of the times these conversations occurred across Australia. This was so for the large national banks as well as the smaller credit unions, specifically targeting Indigenous clients. One of the latter went further, in 2007 introducing pictorial codes for passwords. In this interaction-transaction random sequences

of symbols were presented to clients—from which they chose a personal sequence—and while they were invariably classic Balanda symbols for people (nurses, policemen, firemen, etc) and things (tools, office and household objects), they nevertheless held enough significance at this cultural interface for people to respond positively. While I observed that these sequences could be forgotten, I also saw that people enjoyed the process of choosing them. In contrast I recalled when we sat at computer screens, the clock ticking, and struggled to create passwords that conformed to specific formula—no more or less than so many numbers and so many letters—more than once our choices were rejected by the computer.

But what of the computer-parts in these complex alliances? Did they do any adjusting? I never saw them adjust their dependence on databases and algorithms, but I did see them restrained; restrained in their capacity to seduce, to invade other areas of Yolŋu life-worlds. While they demanded that Yolŋu approach them and declare themselves as individuals, Yolŋu responded by acting out the code for an individual and staunchly maintaining, performing and so reinforcing, their connections. Lines of demarcation were drawn beyond which the computer could not reach.

Beyond the scope of this research, the question remains: How will this negotiation proceed? What will be the outcome, in time, of the inscriptions: Mistrust others? Guard your individual property?

A Conclusion

Within its scope, this research took Latour's advice about travelling through back roads, on foot. In Ramingining it proved all too easy to use stories to illustrate ANT concepts but in turn the vocabulary and insights of ANT, as a 'semiotic toolkit', provided a means to encounter the complexity of Ramingining as a socio-technical world—and so to engage with it thoughtfully—without the need to tidy it into an illustration of classic explanatory categories. It thus allowed me to go on, to stay with Yolŋu in our snail-paced work without being bogged down in goodies versus baddies, Yolŋu versus Balanda, human versus machine and so disengaging myself (and the Yolŋu I worked with) from the potentialities—the opportunities for tinkering and for insights—inherent in those parts of our networks which would have thus been othered. Moreover, while ANT helped me to identify, support and theorise the emergent actor networks which would work and did work, Yolŋu were enabled to work across classic Yolŋu-Balanda divides, working ways to mobilise technologies for their own purposes.

And in turn again, Ramingining enlarged ANT. This actor network in its own right becomes richer each time it is taken to a new place and brings back stories: the kind of stories which demonstrate the work it can do. While it can travel to places that appear to be clockwork paradigms—and help us to see what is hidden—it is even more useful when it goes to work in places where complexity parades as mess, where it can teach the art of not 'distorting into clarity' and the virtue of preserving complexity. The stories it brings back from these places can illustrate, play with and potentially extend or question its practices, 'growing' and even changing them.

In the research, of which the story in this article is only a chapter, there are stories that show how ANT went even further in its work than is described here (see Nicholls 2009). It draws on the insights of AfterANT and writers such as deLaet and Mol (2000), to watch socio-technical objects in Ramingining which behaved more like fluids than networks, or even more like fires (Law & Singleton, 2005). It came to agree that this sort of 'ontological choreography' (Cussins, 1998) also supports the work of finding a way to go on, no mean feat in worlds where getting money from a bank account can take a month.

Moreover, it also found ways to allow ANT to work heuristically, to frame questions which challenge non-Indigenous researchers and developers in remote Indigenous towns to aspire to good faith, fully understanding what that could mean.

References

Akrich, M. (1992). The de-scription of technical objects In W. E. Bijker & J. Law (Eds.), *Shaping technology, building society: Studies in sociotechnical change* (pp. 205-224). Cambridge, MA: MIT Press.

Akrich, M., & Latour, B. (1992). A summary of a convenient vocabulary for the semiotics of human and nonhuman assemblies. In W. E. Bijker & J. Law (Eds.), *Shaping technology, building society: Studies in sociotechnical change* (pp. 259-264). Cambridge, MA: MIT Press.

Appelbaum, D. (1995). *The stop*. Albany, NY: SUNY Press.

Callon, M. (1986a). Some elements of a sociology of translation: Domestication of the scallops and the fishermen of St Brieuc Bay. In J. Law (Ed.), *Power, action and belief: A new sociology of knowledge?* (pp. 196-233). Boston, MA: Routledge & Kegan Paul.

Callon, M. (1986b). The sociology of an actor-network: The case of the electric vehicle. In M. Callon, J. Law, & A. Rip (Eds.), *Mapping the dynamics of science and technology: Sociology of science in the real world* (pp. 19-34). Basingstoke: Macmillan.

Cussins, C. (1998). Ontological choreography: Agency for women patients in an infertility clinic. In M. Berg & A. Mol (Eds.), *Differences in medicine: Unravelling practices, techniques and bodies* (pp. 166-201). Durham, NC: Duke University Press.

De Laet, M., & Mol, A., (2000), The Zimbabwe bush pump: Mechanics of a fluid technology. *Social Studies of Science, 30*(2), 225-63. doi: 10.1177/030631200030002002.

Latour, B.(1983). Give me a laboratory and I will raise the world. In K. D. Knorr-Cetina & M. Mulkay (Eds.), *Science observed: Perspectives on the social study of science* (pp. 141-170). London: Sage.

Latour, B. (1987). *Science in action: How to follow scientists and engineers through society.* Milton Keynes: Open University Press.

Latour, B. (1990). Drawing things together. In M. Lynch and S. Woolgar (Eds.), *Representation in scientific practice* (pp. 19-68). Cambridge, MA: MIT Press.

Latour, B. (2005). *Reassembling the social: An introduction to actor-network-theory.* Oxford: Oxford University Press.

Law, J. (1987). Technology and heterogeneous engineering: The case of Portuguese expansion. In W. E. Bijker, T. P. Hughes, & T. J. Pinch (Eds.), *The social construction of technological systems: New directions in the sociology and history of technology.* (pp. 111-134). Cambridge, MA: MIT Press.

Law, J. (2004). *After method: Mess in social research.* London: Routledge.

Law, J. (2008). Actor network theory and material semiotics. In B. S. Turner (Ed.), *The new Blackwell companion to social theory* (3rd ed.) (pp. 141-158). Malden, MA: Wiley-Blackwell.

Law, J., & Hassard J. (1999). *Actor Network Theory and after.* Oxford: Blackwell.

Law, J., & Singleton, V. (2005). Object lessons. *Organization, 12*(3), 331-55. doi:10.1177/1350508405051270.

Mol, A. (2002). *The body multiple: Ontology in medical practice.* Durham, NC: Duke University Press.

Nicholls, A. (2009). The social life of the computer in Ramingining. (Unpublished doctoral thesis). Charles Darwin University. Darwin, NT.

Tamisari, F. (1995). *Body, names and movement: Images of identity among the Yolŋu of north-east Arnhem Lan*d (Unpublished doctoral thesis), University of London: London.