

INDONESIA: NEW DIGITAL NATION?



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EXECUTIVE SUMMARY

New Digital Nation? is directed towards media and development practitioners, Indonesian and International, who want to use the potential of social media and new ICTs to support local community development and advocacy in Indonesia – especially in eastern Indonesia, far from the infrastructure and resources of national centres. It engages with several sectors: local government, media, civil society, technical networks, and online communities, and emphasises the need to understand local context.

Several key issues impact on the effective use of new media tools. At the national level and as highlighted by Lim, and Wattedgama and Soehardjo,¹ the digital divide remains wide and deep in Indonesia. This is not only a result of geography, but also a consequence of government policy and programs, and of business practices. This means that although the number of citizens online has skyrocketed in recent years, the strongest inference is that Indonesia's digital literacy lags far behind what these numbers suggest. This poses particular challenges to local engagement that seeks to work with social media and new ICTs.

There are nevertheless several positive examples of these tools being used to real effect; yet at the local level they are frequently more limited than they need to be. This is often due to fragmentation between different sectors on the ground: despite some exceptions, many civil society organisations, government, and media institutions are not connected to skilled technical networks (for example, software developers or ICT engineers) that can help them use relevant tools to engage with local problems they confront.

New Digital Nation? includes a number of case studies to highlight positive experiences and practice, and to gather examples that demonstrate some of the broad possibilities – and constraints – in using these tools at a local level; and it draws on the observations of those involved in these experiences. The intention is to provide a selection of short examples that can offer useful lessons, and point towards future activities and collaborations that have promise.

These examples vary greatly in their approach. Nevertheless several broad features emerge: the combination of features depends on particular circumstances. They include:

- Local leadership, as a catalyst, driver, and sustainable approach of initiatives. Most often this leadership is found in local organizations be they business, NGOs or government, comes down to one or two individuals, although some broader institutional examples also exist.
- National technical networks, with organizations connecting expertise and experience and, at least in part, helping to overcome some of the local fragmentation mentioned above. National organisations engaged in this work are small and overstretched, yet play crucial roles in providing direct skills and also, often more importantly, support networks and a **sense of community**.
- Integration of new tools, both software and ICT hardware, within existing, sustainable institutions and networks have the most potential for success. This may range from conventional, commercial media institutions to more community-based groups like established youth networks. Existing local communication capacities, for example community radio, deserve particular emphasis as potential means by which new tools and methods can be tested and adopted at the local level.

Finally, broad social perceptions and debates must be considered – although this is extremely hard to capture and is deserving of further investigation and research in addition to the information in this report. While in many countries the use of ICTs and social media is accompanied with a discourse emphasising the potential for widespread social change, this was acknowledged as less so in Indonesia by a great number of local informants.

¹ Lim, M. (2011). @crossroads: Democratization and Corporatization of Media in Indonesia. Participatory Media Lab, Arizona State University, & Ford Foundation; Wattedgama, C., and Soehardjo, J. (2011). ICT Sector Performance Review for Indonesia. LIRNEasia.

Despite notable exceptions of some political or social campaigns,² the overarching 'tone' of discourse about online communities and mobilisation is frequently explicitly apolitical, often emphasises online marketing, and is commonly very local rather than national in character. It is important to develop a better understanding of this: discourse, perceptions, and expectations help frame and shape how tools are likely to be applied. While community perceptions and social discourse are fluid and hard to 'pin down' (without at minimum extensive surveys), they are also crucial factors underpinning practice.

There are, however, intense local exceptions to this, particularly in areas with conflict or post-conflict dynamics. For example, a number of sources mentioned the relatively higher local political and social online and ICT mobilization in Ambon, which responds to ongoing post-conflict dynamics there (for example see Stroehlein, A., "How 'peace provocateurs' are

defusing religious tensions in Indonesia"³). Conflict and post-conflict locations were not included in the case study areas for this research, and are not explored or discussed in great depth here. However even with this limitation, common anecdotes of different levels of mobilization in conflict settings, serve to emphasise the need to frame ICT and SM practice firmly within local dynamics, including political, social, and cultural factors.

NDN does not attempt to draw all-encompassing conclusions, or 'map' broad local-level trends, a likely impossibility in a country as diverse as Indonesia. Social media and ICT use is as varied as the country itself, responding to locally-available infrastructure, leadership, and locally-defined practices and priorities, among other influences. Instead, it hopes to provide a starting-point for those who want to engage with this critical area, and note some methodologies already in use on the ground, to take this effort forward.

2 Some of the most prominent examples are noted in case studies under 'Social Mobilisation: Online Campaigns' on page 13.

3 Stroehlein, A. (March 12, 2012). How 'peace provocateurs' are defusing religious tensions in Indonesia. The Independent. <http://www.alliance-forpeacebuilding.org/news/87421/> (Accessed March 30, 2012)

INTRODUCTION

Over 43 million Facebook accounts in January 2012;⁴ 19 million accounts on Twitter,⁵ a jump of close to 400% in just one year.⁶ Has Indonesia reached the digital age?

The possibility has enormous promise, including for those working in community development and advocacy. Social media platforms are open to anyone, to raise issues publicly in ways that were impossible just a few years ago. Mobile phone technology is making the ability to do this more ubiquitous and affordable than ever. The proliferation of ICT and online tools, ranging from SMS gateways to interactive voice response (IVR) and interactive mapping in an ever-expanding list, means that there are more ways to share and use information than ever before. Access to information, and the ability of local communities to raise their voice, is power. Are communities able to use these tools to take greater control of their own futures and push their development forward? There's plenty of excitement around this idea, and certainly great potential. But the landscape is complicated and among all the fast-moving changes, it can be difficult to sift between reality and potential, hope and hype.

The numbers by themselves are impressive. But they can obscure the fact that many profound divides still exist in the country. These divides will not simply 'disappear', washed away by an inevitable technological wave. They are both causes and consequences of the development obstacles that communities face, and will shape the reach and impact of new technology.

First and foremost among these obstacles are divisions in telecommunications infrastructure, with many parts of the country left behind. Not far behind are divisions in affordability: where infrastructure does exist, often only the relatively affluent can afford extensive access. Both divisions greatly favour middle-class, urban areas.⁷



Photo courtesy of Yayasan Pikul

But divisions do not only exist in infrastructure: human skills also fall short. In particular, there are relatively few skilled software developers and ICT technicians in Indonesia given the scale of users and need. This is the sector that feeds into other efforts: developers have the skills to see what can be done, and how to achieve it. Just as importantly, despite increasing efforts and initiatives to bridge this gap, the networks of skilled technicians and developers that do exist locally are often not sufficiently connected to government and civil society organisations. This means that critical understanding of the potential application and limitations of digital tools is hampered especially at the local level, which holds back possible applications and innovations.

Engagement with new technology isn't just about providing new tools for communities, or promoting programs for better universal infrastructure; those are crucial, but not enough. It is also about building the skills and networks that will allow communities to test what can meet their needs the best – so that they can imagine for themselves what this field may mean for them.

Some initiatives, pursued by both civil society and government, are working to create greater possibilities for communities at the local level, and to open more space nationally. But they are relatively small and low-profile in national discourse, and there is room for much more.

4 Social Bakers. <http://www.socialbakers.com/facebook-statistics/?interval=last-week#chart-intervals>. Accessed February 08, 2012.

5 Vadlamani, S. (2012). Top Asian Countries in Social Media. *Tech Wire Asia*. <http://www.techwireasia.com/1828/top-asian-countries-in-social-media>. Accessed February 08, 2012.

6 SalingSilang, accessed February 8, 2012. <http://www.slideshare.net/salingsilang/snapshot-of-indonesia-social-media-users-saling-silang-report-feb-2011>. Accessed February 08, 2012.

7 Lim, M., *op. cit.*

2

METHODOLOGY AND SCOPE

Researchers gathered NDN data through key informant interviews, and from existing research. Informants were drawn from those groups and individuals using ICT and social media in a few targeted locations. Interviews were conducted across four locations: Jakarta, Yogyakarta, Makassar, and Kupang, comprising national and regional centres. Reflecting an emphasis on local needs and issues, the greater part of the research took place in Makassar and Kupang, which demonstrate broadly different features.

The researchers sought input from actors across specific sectors. These included:

- Local government
- NGOs / CSOs
- Local and national media outlets
- Blogger groups
- Software developer communities and networks

And, to a limited degree

- Online marketing entrepreneurs

The research does not, therefore, attempt to map everything taking place in each of these sectors and it does not attempt a systematic evaluation or 'assessment' of a given sector (for example, comparing successes with failures in ICT use for governance). Rather, the research sourced as many effective local initiatives as possible, and sought the views of individuals and groups who were working on them.

Interviews explored individual initiatives, and general themes, in particular how new ICT and SM use influences organizations' and individuals' engagement with issues of governance, transparency, community development, rights, and citizen dialogue. Informants were identified through local civil society and practitioner networks by asking the question, "Who is using new ICTs and SM effectively in their work?" with each contact asked to recommend as many other contacts as possible. This aimed to locate as many useful case-studies as possible; as a methodology, however, it clearly doesn't attempt to map everything taking place in a given area and should not be read as such. The 'snowball' approach of each contact leading to others across different sectors also helped to create a sketch of which sectors were linked, sharing ideas and skills, and which were not. In this way, *New Digital Nation?* attempts to build up a picture of emerging practice in specific locations and the methods they are using.

MOBILE, ONLINE: IMPACT OF FACEBOOK AND MOBILE PHONES (HPS)

Indonesia's online growth in recent years is recognised as nothing short of phenomenal: the country's 19 million Facebook accounts put it a close third behind India and the U.S., and users continue to increase; the number of Twitter accounts places it sixth worldwide.⁸

This growth has been especially fuelled by the exploding use of internet-enabled mobile phones or *hanpon* ('hand phones', HPs) across the country. Costs of HP Internet access have plummeted, leading to an upsurge in use (almost 90% of Twitter users access the platform via HPs, and for many it is also the portal of choice for accessing Facebook⁹). Mobile phones are often cited as a tool that can help 'leapfrog' the digital divide and at first glance Indonesia would appear to demonstrate this in action.

There are undoubtedly significant changes taking place. But the effect is uneven, and there are risks in assuming the numbers result in similar impacts seen elsewhere. The impact on local institutions, despite exceptions, has overall been limited. This includes local media, government, and businesses (notwithstanding increasing interest in online marketing at the national level), as well as many civil society NGOs. In some ways this likely reflects that it's still early days in Indonesia's digital uptake. In 2008 the total number of Internet users was marginally over 25 million; by 2010 it was 45 million, or 18% of the population.¹⁰ Yet even with such rapidly-increasing numbers, practice needs time to develop and regional areas will likely be slower to experience the benefits that their city-based counterparts enjoy. This is also reflected, in the user numbers - while these are increasing, actual Internet subscriptions still lag far behind, numbering just over six million in 2009 (up from around one million in 2007).¹¹ Users predominantly get online through private Wartels (Internet cafés) rather than through personal subscriptions,¹² which introduces an extra barrier to the development of new practices.

“...19 million Facebook accounts put it a close third behind India and the U.S...”

This contrasts with the huge numbers for Facebook and online HP access – and these numbers draw out a contradiction. Many HPs are specifically enabled for Facebook access – together with pay-as-you-go top up subscriptions – but users do not necessarily see that as being 'online'. Numerous anecdotes across all locations attest to this. Facebook is seen as a specific activity and not the same as being online more broadly. Digital literacy, then, lags far behind the level of Facebook's – a single platform's – use (see *Digital Divide- Consumer Literacy*, on page 9).

It would be a mistake to simply assume that digital literacy and online practice will 'catch up' with and reflect what's taking place in other countries – whether that is the US, India, or elsewhere in the region. There are many reasons why Indonesia's 'digital sphere' is taking the form that it is. How these influences play out must be better understood to help frame local interventions. Some recent national-level research has begun to explore these issues, and more is on the way.¹³ However much more is needed; and for anyone aiming to use such tools themselves, locally-grounded context is crucial. Indonesia's vast diversity, social, political, cultural, geographic, and in development and infrastructure, means that national-level trends can only inform local initiatives so much.

8 Social Bakers, op. cit., Vadmamni, op. cit.

9 Lim, op. cit., p. 8. Lim demonstrates that ownership of mobile phones devices across the board (not restricted to Internet-enabled devices) almost doubled in one year to 45% by 2011 in rural areas, and leapt from 53% to 69% in urban centres; according to her, there are now around 211 million users and 88% mobile phone penetration.

10 Lim, op. cit., p. 4

11 Wategama and Soehardjo, op. cit., p. 21

12 Lim, op. cit., p. 5

13 These include Lim, op. cit., Wategama and Soehardjo, op. cit., Nugroho, Y. (2011). Citizens in @ction, Manchester Institute of Innovation Research and Hivos Regional Office Southeast Asia, 2010. Other resources include: Lim and Nugroho (eds), (2011) *Special Issue on Social Implications of ICTs in the Indonesian Context*, *Internetworking Indonesia Journal*, Vol. 3, No. 2, 2011 <http://www.internetworkingindonesia.org/Issues/Vol3-No2-Fall2011/ijj-vol3-no2-fall2011.html>. Accessed March 19, 2012. Further upcoming research due for publication later in 2012 by Kunci Cultural Studies Centre aims to look at mobile technology cultures.

4

LOCALISED NATION AND THE DIGITAL DIVIDE

Before looking at examples of successful initiatives, the issues behind the various digital divides need to be understood. They frame local limitations, and constrain what opportunities exist. They also illustrate the importance of key national-level issues of policy, infrastructure, and laws relating to online content and freedom of expression.

Digital Divide¹⁴ – Infrastructure

Indonesia's telecommunications infrastructure is heavily-skewed towards urban centres. While figures show an enormous increase in the number of broadband subscribers, according to Lim average users spend between IDR 200,000 (roughly USD 21) and 500,000 (roughly USD 54) per month on the service – placing it well beyond the average monthly salary of IDR 355,000.¹⁵ This comes on top of severe urban-rural divides in telephony infrastructure: up to 43,000 or 65% of Indonesia's villages have no access to any network,¹⁶ and 19 million households, or 40% of the population, have no electricity.¹⁷

While increases in fixed line broadband subscriptions have remained relatively static, mobile broadband has jumped dramatically, with over 3 million subscribers in 2009, representing an increase of over 100% in one year, and around 600% since 2007.¹⁸ Mobile broadband is one avenue to increase accessibility – but it requires investment in mobile telephony towers, and for private companies regional areas, with both lower average incomes and lower population densities, are less attractive markets and so receive less

14 There are several iterations of debates on and definitions of the 'digital divide'. A broad understanding of these issues informed the approach of researchers; however this report does not specifically engage with those debates or definitions in any detail. Rather, it outlines the factors underlying levels of access to and participation in the online environment, identified by sources and observed by researchers.

15 Lim, *op. cit.*, p. 4

16 Donny and Mudiardjo, in Wattedgama and Soehardjo, *op. cit.*, p. 22

17 Lim, *op. cit.*, p. 8

18 Wattedgama and Soehardjo, *op. cit.*, p. 21

INTERNATIONAL SUB-MARINE CABLES, INDONESIA



Source: Telegeography 2011, in Wattedgama and Soehardjo, *op. cit.*

investment.¹⁹ This results in patchwork levels of access, particularly pronounced in regional and rural areas.

Indonesia's global Internet connection relies on satellite, and on international submarine cables that connect to a limited number of locations in Sumatra, Borneo, and Jakarta.

Domestic submarine cables expand this to include some other key islands – but the great majority of locations still have no terrestrial Internet infrastructure. Of the four communications satellites, only one – Palapa D, launched in 2009 – has a data link for broadband.

19 *ibid*, p. 22. Wattedgama and Soehardjo also point out that, with strong competition, private mobile phone operators in Indonesia receive some of the lowest levels of Average Revenue Per Minute (ARPM) of subscriber use in the region. (p. 14)

Plans to build a national fiber optic network (the 'Palapa Ring'), floated before the Asian Currency Crisis in 1998, have stalled and progress appears uncertain.²⁰ This means that Indonesia's national Internet 'backbone' faces several limitations which impact both current accessibility. These limitations in infrastructure also act as a major brake on any short- or medium-term efforts to expand connectivity in the future to marginalized areas. This means differences in urban / rural and regional / centre levels of connectivity, which form the major divisions in access across the country, are likely to endure for some time.

Several initiatives to provide 'last-mile' connectivity have been subject to complications and delays. Private providers are obliged to pay a Universal Service Obligation (USO) tax, of 1.25% of revenue (up from 0.75% in 2009),²¹ intended to support core telephony and Internet infrastructure in marginalised areas. This has been used to fund two government programs. One is the 'Desa Berdering', which provides subsidised telephone connections targeting 43,000 villages (over 38,000 have been reached). However reports indicate that the service often falls into disuse once the subsidies end. A second program is 'Desa Pinter', which aims to provide online connectivity nationwide via almost six thousand district Internet service centers by 2015; only officially inaugurated in early 2011; it is still too early to assess its effectiveness.²²

Several sources in the telecommunications industry criticise the use of USO funds, with "the bulk of the money ... being treated as if it were any other tax" by the government and not used to target digital divide or broader telephony needs. (Several private companies give the lack of appropriate use of this fund as the reason for withdrawing from the consortium that was backing the much-delayed Palapa Ring project.)²³ Separately, efforts to bring in last-mile WiMax services have also stalled due to disputes between service providers and the regulator.²⁴

One grass-roots 'last mile' initiative is the RT/RW-Net initiative, a neighbourhood wi-fi project started by retired academic and long-time ICT proponent Onno Purbo.²⁵ This uses wireless connections to link up to eight houses at minimal cost of around USD 50 to set up and USD 35-40 per month to run. It is unclear how many users have established this low-end system, but in response to the enduring digital divide, it is understood to be growing.²⁶

20 Ibid, p. 19-23

21 Ibid, p. 36

22 Lim, *op. cit.*, p. 10

23 Wattedgama and Soehardjo, *op. cit.*, 35-36

24 *Ibid*, 21

25 For more detail, see <http://www.ashoka.org/node/3647>. Accessed March 28, 2012.

26 Lim, *op. cit.*, p. 5

DOMESTIC SUB-MARINE CABLES, INDONESIA



Source: Alcatel (undated), in Wattedgama and Soehardjo, *op. cit.*

PROPOSED PALAPA RING



Source: Iskandar (2007), in Wattedgama and Soehardjo, *op. cit.*

Digital Divide – Consumer Literacy

Much of Facebook's extraordinary growth in Indonesia is ascribed to sales of Blackberry and other handsets (not only new models, but cheap second-hand ones sold by affluent buyers who upgrade) that are set up to support the platform. But as noted above, accessing a specially-tailored mobile application doesn't mean users have suddenly 'leapfrogged' into online literacy.

A common story illustrates this. Several new HP owners don't just buy the handset from a vendor – they pay for the vendor to also set up their Facebook account; if they forget their password, they can go back to the vendor to retrieve it.²⁷ The idea that they are therefore 'online', in the sense of operating

27 This anecdote is also mentioned by Nugroho, *op. cit.*, p.25

ICTS AND LOCAL ECONOMIES: LIBERATION / DISRUPTION

New ICTs and mobile technologies are frequently held up as tools to empower local economies. Indonesia has its fair share of anecdotes about this too – for example, a video by ICT Watch tells of a becak (cycle-rickshaw) driver who uses Facebook to generate customers from overseas tourists (see video ‘Timelines’ at linimassa.org). Another case tells of the street vendor who sends an SMS to his customers when he goes to the morning market, buys what they ask for in their replies, and delivers it to their door; there is no waste of time or goods.

But there are other stories. In South Sulawesi, one tells about Kajang village, well-known for protecting its traditional adat cultural practices.³⁰ Noise, technology, and electricity, have been prohibited there to preserve traditions. But now mobile phones are prevalent, hand-held video is reported as almost ubiquitous, and much of the local income – once saved for ceremonies – is being spent on phone credit or ‘pulsa’. Children, once ensconced in their village, are now sent out to recharge phones in nearby centres with electricity, and so become exposed early to influences previously inaccessible. Cultural and economic forms are changing drastically.

Nugroho³¹ includes similar anecdotes: for example, of villagers who, to pay for pulsa, are now exploiting their nearby teak forest reserves to the point of exhaustion, selling the resources at an unsustainable level; or of local becak drivers who cannot make a living, because where they used to ferry passengers between their bus-stop and home, now passengers call family members to pick them up.³²

There are many and varied stories like this. They show that new ICTs and mobile phones are not just micro-economic liberators, as frequently and enthusiastically claimed. They can liberate; and they can also be profound disruptors of local economies and culture, something that aggregated national numbers of mobile phone use and ICT penetration cannot capture. A more sophisticated appreciation of this local dynamic can help ask what role policies, projects, and business practices can have in promoting economic liberation and minimizing the suffering caused by such disruption.

This is by no means an easy question, and in many cases it may be impossible to answer. But until the terms of the discussion are expanded to acknowledge profound local disruptions as well as economic advancement, it will not even be asked.

30 Although sources referred to local newspaper articles on the situation in Kajang, none were available to the researchers. The description here therefore remains anecdotal, and deserving of further examination.

31 Nugroho, *op. cit.*

32 *Ibid*, p. 28

independently in a web environment, is mistaken. Many are unaware that they have an email address, although this is needed to open a Facebook account, and in fact they don’t have one – the vendor does. In this example, ‘digital literacy’ equates to little more than the technical knowhow required to send an SMS.²⁸ In common international discourse and analysis, the implications of this for personal information security would cause consternation – but that was not expressed as a significant concern by any of the sources met during this research. This highlights some differences in current attitudes and approaches prevalent – even if not universal – in Indonesia on the issue of data security, including by many sources who had a more sophisticated awareness of cyber data flows and uses.

It’s impossible to quantify the degree to which this example holds true. It’s almost certainly a small minority; however in all research areas except Jakarta, sources commented that they personally knew of individuals who operated Facebook in this fashion – and those individuals were almost always in

28 This is not the only common anecdote relating to Facebook use and digital literacy. For example, several civil society trainers relate that in workshops, participants commonly claim they have not been online for several days – but then confirm they have been accessing Facebook every few hours.

areas away from big urban centres.²⁹ The key point is, simply, that digital literacy cannot be assumed from sheer numbers of service take-up. The potential provided by expanded use of online platforms is significant, but even where infrastructure enables a certain level of online participation, skills and awareness should be included in an understanding of digital divides.

Beyond technical skills, another commonly mentioned feature that affects online engagement is simply confidence: several sources in each location visited emphasised both the enthusiasm, and the uncertainty, of young people participating online. This included uncertainty about how to write blogs, for example, or state opinions (many new blogs reportedly open with an apology), and perhaps one of the most common requests for online support received by media outlets and NGOs is for ‘more training in how to write online.’

29 There are, again, various other anecdotes that several sources used to illustrate this same point about digital and computer literacy. For example: of a regional consumer who had never used a computer before, anxious to buy a laptop, but unsure if he could access Facebook on it; villagers receiving training in Internet use who, unfamiliar with computers, refused to touch it out of fear of electrocution; consumers in remote areas anxious to buy smartphones but not realising they lacked any kind of data coverage in their area; and so on.

Digital Divide – Developer Skills

Indonesia has talented technical developer communities, including user groups formed around Linux or Ubuntu, Android, or other platforms and tools – but they are small compared to the size of the population and the need. Even at the national level, the lack of sufficient available skills has been identified as a drag on commercial digital development; in a 2010 profile of the sector by TechCrunch, leading entrepreneurs highlighted the issue: “[The biggest obstacle] is finding developers. In Indonesia, developers are considered an entry-level position, not a lucrative career path. Most companies have to invest six months or so in training the talent they need, making scaling up a challenge.”³³

Outside main urban centers, the lack of skills is exacerbated. While technically-oriented communities and networks exist – with membership often combining Internet-café owners, students, and so on – they are relatively small. It is difficult to assess the scale or depth of these networks – some are made up of bona fide developers with coding skills; others are more

akin to user groups or ‘fans’ of particular platforms and products, such as Android or Mozilla.

Some of the reasons for this are unsurprising. While junior and senior high schools include ICT on the curriculum, schools themselves often lack access to the net, and skilled teachers to deliver lessons. Several regional tertiary institutions were also criticized by informants, for providing inadequate training to develop necessary skills.

There are programs that aim to combat this gap in skills and awareness. The government has recently helped promote an independent network of technical volunteers – Relawan TIK, literally ICT Volunteers – although this still needs further development and consolidation (see *Tech and Developer Networks*, on page 26). A number of ICT-oriented NGOs also deliver critical workshops and support.

Finally, the skilled networks that do exist often struggle to connect as effectively as possible with government, civil society, or other groups due to many reasons – which range from lack of time on the part of individuals involved, to lack of awareness on the part of institutions of the potential resources available.

33 Lacy, S. (2010). What the hell is going on in Indonesia? *TechCrunch*. <http://techcrunch.com/2010/05/27/what-the-hell-is-going-on-in-indonesia/> Accessed February 8, 2012.

PROFILES: ICT NGOS

Several national-level NGOs focus on the use of ICTs in community development. They are small, but crucial, in providing skills, promoting awareness, and fostering networks of support.

ICT Watch (ictwatch.com/id) was established in 2002 with the goal of finding ways to raise community voices beyond the channels of conventional media. They promote skills and awareness for citizens to be able to negotiate and use the Internet and web. Resources include the video documentary 'linimas(s)a' ('Timelines', linimassa.org) that shows several of the most prominent case studies of social media and mobile technology use. ICT Watch has screened this at events in different locations across the country, and provides it to others who wish to hold their own events.

A major ICT Watch program is Internet Sehat or 'Healthy Internet', which involves teaching safe online practices and productive use of the net. This program has now been adopted and expanded by a range of other organisations. Other activities include promoting freedom of expression, supporting positive local content generation and web-hosting for civil society actors, researching the use of new media technologies (sometimes in collaboration with overseas universities), and promoting ICT for women.

Air Putih (www.airputih.or.id) was formed in Aceh shortly after the 2004 tsunami, and aims to increase the exchange of information about and use of ICT as a means to build a stronger civil society. They provide training to a wide range of organisations and groups, including NGOs, local schools, and government departments, and promote Open Source technology. Communications capacity in natural disasters remains a strong focus, and they have a rapid response team that has worked in earthquake and flood responses, providing integrated communications support including satellite links and SMS gateways. They also provide free web hosting to NGOs and communities, and conduct research in and development of ICT tools.

Combine Resource Institute (CRI) (<http://combine.or.id>) supports communities' ability to share information and communicate to policy-makers and others with resources, training, facilitation, and expertise. Established in 1999, their efforts focused first on community radio; since 2001 they have incorporated extensive use of new ICTs. Activities include extensive work with community radio stations. This also forms a 'backbone' for several of Combine's other ICT initiatives in development, including a 'citizen journalism' portal and efforts to link local products to central markets, outlined in more detail in Local Networks and Capacity, under Civil Society, below.

CRI played a leading role in Jalin Merapi, a landmark humanitarian effort following the 2010 eruption of Mount Merapi, which harnessed social media, ICTs, and community radio to meet urgent needs of those affected by the eruption; see Jalin Merapi under Civil Society below for more details.

SchoolOnffLine & RT/RW-Net. Both of these initiatives are largely driven by Onno Purbo, who is a long-time proponent of ICT for communities in Indonesia, and a board member of both ICT Watch and Air Putih.

SchoolOnffLine³⁴ targets digital literacy as the crucial goal to enable ICT use for community and individual development. It allows schools that lack an Internet connection to teach students computer and Internet use. It comprises a hard-disk with a digital library with around one terabyte of material, based on Open Source (Ubuntu). The materials can be run from an offline school network, or by DVD. *RT/RW-Net* is a village-level wireless Internet project, started in 2004, which can connect six houses for a minimal cost.³⁵

Onno Purbo emphasises the need to make ICT uptake 'demand driven', allowing villagers to take the initiative to establish infrastructure and get connected once they see the benefits it can bring; he speaks of the need to establish a village 'Internet movement'.³⁶

34 <http://opensource.telkomspeedy.com/wiki/index.php/Schoolonffline>. Accessed March 19, 2012.

35 Lim, op. cit., p. 5

36 https://www.facebook.com/note.php?note_id=10150432016531528. Accessed February 08, 2012.

SOCIAL MOBILISATION

Social Mobilisation: Online Communities

An increasing number of communities have formed online, or have begun using online space to enhance their activities. Some examples include:

Indonesia Berkebun aims to create community green spaces in urban areas, often by finding unused urban space, and gaining agreement from the owner to turn it into open gardens (indonesiaberkebun.org).

Akademi Berbagi is a community of teachers, experts, and practitioners that provides and organises free lessons online, covering topics ranging from marketing to social media to psychology, among others (akademiberbagi.org).

Bike2Work started in 2004, promoting cycling above cars for urban transport. It currently claims over 12,000 members in almost 140 cities. Originally organised through email lists, it has since migrated to a more feature-rich, interactive website (b2w-indonesia.or.id).

Blood for Life was started by an individual blogger, Valencia Mieke Randa, after she witnessed a death in hospital caused by a lack of available donated blood. Through twitter ([@Blood4LifeID](https://twitter.com/Blood4LifeID)) and a Google group, Blood for Life verifies calls for urgent blood donations and distributes the request³⁷ (Google has also presented Blood for Life in an advertisement targeting the Indonesian market³⁸).

There are several other examples, such as politikana.com,³⁹ which focuses on political discussion; and savejkt.org, which is a structured campaign around urban issues, all of which demonstrate enhanced community collaboration.

Kaskus.com stands alone as one of the most unique online communities in Indonesia. It is the highest-ranking Indonesian site for online traffic, coming in at number seven of all sites accessed in Indonesia.⁴⁰ It combines online forums with marketplace functions (around USD 200,000 worth of goods are exchanged each month on the site.⁴¹

Blogger groups also form a number of active online communities. Rather than based around interest, many of them are based around their hometown and local identity, and often form with an express objective to promote their local culture; see Blogger Networks below for more detail.

Social Mobilisation: Online Campaigns

Most prominent online mobilisation campaigns have had a humanitarian focus – although some overlap with political demands. Among the most celebrated are ‘Coin for Prita’, and ‘Bibit-Chandra’.⁴²

37 Hamid, A. (2011). My Jakarta: Valencia Mieke Randa, Founder of Blood for Life. The Jakarta Post. <http://www.thejakartaglobe.com/myjakarta/my-jakarta-valencia-mieke-randa-founder-of-blood-for-life/469077>. Accessed March 19, 2012. See also ICTWatch’s documentary, *linimas(s) a, op. cit.*, for more detail.

38 Ikbar, M. I. (2011). Google Launches Its Very First TV Commercial In Indonesia. TechInAsia. <http://www.penn-olson.com/2011/09/12/google-indonesia-television>. Accessed March 19, 2012.

39 For more a more detailed discussion and case-study, see Wayansari, A. (2011) *The Internet and the Public Sphere in Indonesia’s New Democracy: a Study of Politikana.com*, *Internetworking Indonesia Journal*, Vol. 3, No. 2.

40 As at February 08, 2012; see <http://www.alexa.com/topsites/countries/ID>

41 Nugroho, *op. cit.*, p. 34

42 See ICT Watch’s documentary *linimas(s)a*, noted above, for more detail on each of these cases.

COIN FOR PRITA

After Prita Mulyasari was misdiagnosed with dengue fever by the private Omni International Hospital in Jakarta (in fact she had mumps), she sent an email complaining of this to a number of friends. The email was circulated on Facebook – and, using the Electronic Information and Transactions Law, the hospital sued her for civil defamation. She faced six months in jail and a hefty fine of almost USD 40,000. However mass public outrage, organised especially on Facebook, resulted in her release after three weeks, and public donations paid her fine. (Although she was cleared of all charges in 2009, in 2011 the Supreme Court ruled against an acquittal and placed her on probation.⁴³) The case resonated with a public highly cynical of the country's corrupt courts and justice system.

BIBIT-CHANDRA

Bibit Samad and Chandra Hamzah, two deputy chairmen of the national Corruption Eradication Commission or KPK, were arrested on charges of bribery and extortion. However evidence indicated an apparent effort to frame the two in order to undermine KPK operations.⁴⁴ Facebook was used to organise sustained public protest; the page 'Gerakan 1,000,000 Facebookers Dukung Chandra Hamzah & Bibit Riyanto'⁴⁵ gained over 1,300,000 followers.⁴⁶ The case was dropped via a little-used legal mechanism by the Attorney-General's office "for the sake of public interest."⁴⁷

43 Baskoro, F.M. and Prakoso, R. (2011) Shock Guilty Verdict in Prita Mulyasari Verdict, *The Jakarta Globe*, <http://www.thejakartaglobe.com/home/shock-guilty-verdict-in-prita-mulyasari-saga/451797>. Accessed March 19, 2012

44 (2009). The Gecko Bites Back. *The Economist*. http://www.economist.com/node/14816720?story_id=14816720. Accessed February 08, 2012.

45 'Movement of One Million Facebookers Support Chandra Hamzah and Bibit Riyanto', <http://www.Facebook.com/group.php?gid=169178211590>. Accessed February 08, 2012.

46 Nugroho, op. cit., p. 34

47 Christanto, D. (2010). Bibit Chandra Dodge Legal Process. *The Jakarta Post*. <http://www.thejakartapost.com/news/2010/10/30/bibit-chandra-dodge-legal-process.html>. Accessed February 08, 2012.

Both these examples mobilized citizens around social justice and, ultimately, political issues, and show the clear potential for SM and new ICTs to contribute to significant change. But they are rare; despite no shortage of critical issues in Indonesia, there have been few similar examples. As Nugroho, Lim, and others point out, other significant abuses and tragedies – such as the villagers who lost their homes in the Lapindo environmental catastrophe; the murderous attacks on the Ahmadiya sect; or murders by security forces in West Papua – have all failed to generate significant mass response, despite the availability of information and video footage of the issues.⁴⁸

'Coin for Prita' and 'Bibit-Chandra' featured compelling individual stories that encapsulated key issues. Perhaps more important, as Nugroho notes, these stories and issues related to the most connected, online-savvy groups in society – the young and urban middle-class⁴⁹. The issues of Lapindo, West Papua, and Ahmadiya do not have the same resonance for this audience. SM and new ICTs facilitate some new forms of mobilisation and organisation, but it also reflects and extends enduring social structures into the online sphere.⁵⁰

Online Marketing

There are several summaries, commentaries, and analyses of digital start-ups, online entrepreneurs, and online marketing strategies in Indonesia. Seminal though this sector will be to the eventual shape of the country's online environment and behaviour, it forms an evolving background, rather than a focus, of this report.⁵¹

Even so, there are several examples in which marketing initiatives intersect directly with the communities and groups that underpin citizen engagement online, and help frame the popular imagination and perceptions of the use of SM and new ICTs. SalingSilang is at the forefront of several of these trends.

48 Lim, op. cit., pp. 19–20; Nugroho in ICT Watch, op. cit.

49 ICTWatch, op. cit.

50 Nugroho (op. cit., p. 55) also notes some of the difficulties in mobilising around human rights due to local context, for example the perceptions in Aceh that rights are a Western concept and agenda.

51 For more detail, see for example Digital Media in Indonesia, Singapore Management University: https://wiki.smu.edu.sg/digitalmediaasia/Digital_Media_in_Indonesia#cite_note-67 Accessed March 19, 2012.

SALING SILANG, ONLINE COMMUNITIES, AND SOCIAL MARKETING

Although a private company, Saling Silang is also closely associated with Rumah Langsat, located a few metres away and where many of the Coin for Prita campaign activities were organised. The company aims to foster online communities and networks; this may include approaching existing communities (such as Bike2Work and Indonesia Berkebun) and offering to provide them with feature-rich websites and platforms. Alternatively, staff also describe monitoring online trends to identify emerging networks and issues, and approaching them with the same offer.⁵²

Saling Silang identifies a lack of data on Indonesia's online behaviour as a major gap, and so gathers some of the most up-to-date data available, including reports every three months that track Twitter trends, Facebook usage (through the proliferation of fan pages, as Facebook data and discussions are not publicly accessible for external searches), and blog topics (the company tracks blogs that sign up to their system; out of more than 5.3 million blogs in their directory, almost three thousand have joined.) Research goals include tracking positive and negative sentiments in online content, adapting international tools to Indonesian keywords, and so on. They have also developed a version of Twitter for low-end phones, called Tuitwit (which uses a browser interface but with an appearance of an app) to provide a service that can boost uptake and increase the audiences they can access.

Other activities include 'Social Media Festivals',⁵³ with the first one held over three days in September in a Jakarta shopping mall, and which reportedly attracted over 40 thousand participants; more are planned. These aim to build and publicise communities of interest – including several communities supported by Saling Silang's own platforms – which also generates links, or at least awareness, with corporate advertisers.⁵⁴

Overall it's an approach with plenty of resonance with the practice of international behemoths such as Google and Facebook itself, but also significant differences with the inclusion of active targeted fostering of specific local groups, with the capacity to monetise this through different marketing strategies.

While based in Jakarta, Saling Silang also aims to spread networks of interest nationally, and has held events (called 'Sharing Kerliling') in other parts of the country; events in about 48 cities and towns are planned for 2012.

52 See salingsilang.com/jejaring Accessed February 08, 2012.

53 See <http://socmedfest.com>. Accessed February 08, 2012.

54 According to Saling Silang Executive Director Enda Nasution, many corporations jumped headlong into online promotions and marketing with mixed results or results that were difficult to measure; he says the sector is now sitting back a little more, evaluating their experiences to date, and working on more strategic and targeted approaches

Online Communities, Social Discourse, and Mobilisation: Some General Observations

Global discussions on the social impact of online technologies have frequently emphasised its 'democratising' elements, especially its capacity to enable social mobilisation and social change (especially since the Arab Spring), and the resulting shift in political power to an ever-more-connected public. This presents a framework of once-isolated citizens now linked together online, more informed, more organised, and demanding their rights: here, online tools are often linked with a discourse that

celebrates social and political change. However while this 'social change' frame is present in Indonesia, it's overall less prominent than elsewhere. Rather, as one informant expressed it, these tools "have arrived together with marketing discourse, not a social change discourse."

In this research, attitudes expressed on social mobilisation by many informants frequently and explicitly emphasised their apolitical nature. According to Enda Nasution of Saling Silang, Indonesians "want positivity" and are "fed up with government." He believes overtly political initiatives have little chance of attracting significant online support; in his view explicitly non-political initiatives that contribute to social good gain

much more interest. (This is reflected in numerous local-level observations; for example, bloggers from Makassar's Anging Mammiri group say they avoid politics mostly because they are "not interested" or feel they "lack expertise.") In many cases this attitude wasn't expressed only towards political parties, but also to political conflicts more generally. Despite some high-profile cases of social mobilisation, then, this poses a challenge for rights advocates' and campaigners' use of SM and new ICT. Doing 'social good' was still a prominent motivation; however this frequently related more easily to humanitarian concerns, rather than contests over rights or political interests.

These are general observations; the dynamic is more complicated than this. In one variation, organisations like ICT Watch, and rights campaigners generally, emphasise Freedom of Expression issues and rights online; but they are relatively small. As mentioned above, another variation occurs in locations where overt conflict is taking or has taken place – for example in Ambon – where online communities are reportedly well-engaged with political and rights issues; however local conflicts struggle to translate out of their immediate context to the national level, and so this mobilisation becomes more a localised exception than a general feature.

Free Speech, Legal Threats, and Online Futures

As Prita Mulyasari's case shows, free speech online faces some serious legal threats and obstacles, and upcoming legislation has the potential to make the situation even worse. This needs to be a significant area of focus for those promoting the use of SM and new ICTs for development and advocacy purposes; policy and law frames applications and innovations, enabling them or crippling them. This will be a major factor in determining whether the online space is open to all citizens, or is constrained by other interests.

Current laws that pose risks to the online sphere include (for a more detailed overview see Lim from where much of this data is drawn⁵⁵):

- Long-standing **Criminal Defamation Codes**, which are frequently abused against the media, according to AJI (Aliansi Jurnalis Independen, Independent Journalist Alliance);
- **Electronic Information and Transactions (ITE) Law**, established in 2008, used in the case of Prita Mulyasari and others;

- The **Election Law (2008)**, which critics argue places unwarranted risk and burden on media outlets, and contradicts elements of earlier laws that support media freedom;
- The **Transparency of Public Information Law (2008)**, a Freedom of Information Act which nevertheless provides for punishments for vaguely-defined 'misuse' of information gained through its provisions;
- The **Pornography Law (2008)** which makes the use of sexually-related material that violates public morality a criminal act. Again pornography is vaguely-defined; downloading material deemed pornographic can lead to a four-year jail sentence.
- The government also attempted to promulgate a **Ministerial Decree on Multimedia Content**, specifically aimed at regulating the online environment. This did not make it into law, but has been interpreted as a clear statement of intent.

Upcoming laws also pose a threat, including:

- The **Informational Crime Technology Bill**, criticised as being too vague and overly aggressive in its terms.
- The **Media Convergence Bill**, which risks merging broadcast, telecommunications, and other current regulatory bodies into "a super-body armed with penal provisions that will have the mandate of regulating and monitoring the press, broadcast and new media, and various telecommunications platforms."⁵⁶
- The **Intelligence Bill**, which includes provisions for wire-tapping and intercepts, and has failed to incorporate human rights principles within its formulation.

An important step noted by Lim that has future potential has been the establishment of an Indonesian Internet Governance Forum (ID-IGF), a multi-stakeholder forum for policy dialogue, in which the Association of Internet Service Providers APJII is closely involved. It links representatives from the private sector, civil society, and to a lesser degree the Ministry of Communication and Information.⁵⁷

55 Lim, *op. cit.*, pp. 21-23

56 SEAPA (2010), Indonesian journalists prepare for more legislative battles, in Lim, *op. cit.*, p. 21

57 Lim, *op. cit.*, p. 25

LOCAL PRACTICE AND FEATURES

South Sulawesi: Makassar
Nusa Tenggara Timur: Kupang

The following sections look in greater detail at South Sulawesi province, particularly in the capital Makassar, and Nusa Tenggara Timur (NTT) province and its capital Kupang. A few key examples have also been drawn from Yogyakarta, in Central Java.



Source: University of Texas⁵⁸

58 <https://www.lib.utexas.edu/maps/indonesia.html>. Accessed March 28, 2012



Photo courtesy of AirPutih

While many citizens begin to access in particular Facebook through mobile applications, government institutions appear to be more focused on heavier-infrastructure websites for official portals, or, lacking the skills and infrastructure within their offices, eschew online options altogether.

Local Government

Use of SM and new ICTs by local government is generally limited.⁵⁹ For example, while many local-level or Regency governments in South Sulawesi have established websites as part of their outreach, their promotion to and access by the public is limited, and their integration with other outreach efforts, such as radio and newspapers, is patchy.

In part this reflects infrastructure – for example several local governments in South Sulawesi province give a greater role to local radio, whether community- or government-owned, to provide information and answer questions, as this is more accessible to communities. Several areas lack sufficient infrastructure for communities to be able to access the web, even if their local government were to have a strong online presence (and many government offices have limited access themselves).

However this also reflects an uneven approach: the government departments of many political leaders may lack a web portal, but several leaders themselves have very active Facebook accounts. These provide information and commentary that relates to their work, but from a private perspective, rather than falling under public information provided by their office.

In general then, even accounting for structural limitations, local government is not keeping up with the rapidly-evolving digital sphere, or going where several of its citizens already are. While many citizens begin to access in particular Facebook through mobile applications, government institutions appear to be more focused on heavier-infrastructure websites for official portals, or, lacking the skills and infrastructure within their offices, eschew online options altogether.

59 Dewi (2011) provides a detailed case-study of one village administration's use of e-governance tools, supported by CRI, near Yogyakarta, which availed itself of youth volunteers for data collection, and media cross-platforming. Dewi, A. S. (2011) The Role of Local e-Government in Bureaucratic Reform in Terong, Bantul District, Yogyakarta Province, Indonesia, in Lim and Nugroho (eds), *Special Issue on Social Implications of ICTs in the Indonesian Context*, *Internetworking Indonesia Journal*, Vol. 3, No. 2, 2011 <http://www.internetworkingindonesia.org/Issues/Vol3-No2-Fall2011/ijj-vol3-no2-fall2011.html>. Accessed March 19, 2012

GOVERNMENT ONLINE: FACEBOOK IN BANTAENG AND BULUKUMBA

Mobile phones with integrated Facebook functions have the potential to link the public with a more accessible and responsive government portal – if one exists. Yet despite extensive enquiries researchers could only find reference to two local governments who had taken this initiative in the areas visited, in Bantaeng and Bulukumba in South Sulawesi.

Bantaeng (population approximately 170,000⁶⁰) is around four hours' drive along the southern coast from the provincial capital Makassar. The local government Humas department (Hubungan Masyarakat, or – roughly – Public Relations) manages the government's Facebook page,⁶¹ which is around two years old and less formal than the government's website;⁶² in November 2011 it had almost 1,400 friends. However the page is apparently not integrated into an overall communications approach: other government departments – or individuals within them – also have their own Facebook pages, but the content on these is not necessarily coordinated; and the government's official website has no Facebook link. The main channel for community questions is still via local radio, and there is little link between that material and possible cross-promotion on the Facebook page. (Bantaeng government also occasionally disseminates video via a vacant cable TV channel hosted by the local cable TV company; however this is irregular, and there is no process whereby audiences are notified of an imminent broadcast.)

Bulukumba (population approximately 400,000⁶³) is another two hours' drive beyond Bantaeng. The local government has a single Facebook page,⁶⁴ again run by the Humas department; one person coordinates this. It has been operational for about one year; as government offices also gained Internet connections around a year ago. The page is an interim measure until a full website is established, after which current thinking is to cease using it.

Bantaeng Terkini,⁶⁵ a citizens' Facebook group, demonstrates the possibility or 'proof of concept' that considered use of the platform can increase engagement with local government. It started as a locally-based networking page with no predetermined agenda, but then evolved into a forum on the local government, including discussion and criticism. It has gained a receptive reaction from the Bantaeng government and researchers were told issues raised within it receive attention. At the time of writing it had over 800 members.

60 <http://www.citypopulation.de/php/indonesia-admin.php?adm2id=7303>. Accessed March 28, 2012.

61 www.facebook.com/profile.php?id=100000891153008. Accessed February 8, 2012

62 <http://www.bantaengkab.go.id/home>. Accessed February 8, 2012

63 <http://www.citypopulation.de/php/indonesia-admin.php?adm2id=7303>. Accessed March 28, 2012.

64 <https://www.facebook.com/pages/Kabupaten-Bulukumba/92298452875>. Accessed February 8, 2012.

65 <https://www.facebook.com/groups/170029736341161/>. Accessed February 8, 2012.

In the cases of Bantaeng and Bulukumba local governments, individuals were responsible for establishing the respective Facebook pages; approval and buy-in from the top of the administration came after the fact. The simple popularity of Facebook indicates it is a useful channel, and the pages are understood as successes. However it appears their impact could be heightened with some coordinated crossover and synergy with other government communication platforms. Despite these examples, other nearby local governments who have the

same infrastructure capacity have yet to pick up on this idea formally; public communication remains centred on conventional media relations. Rather than leading efforts to use SM and new ICT increase citizen communication, local government is often lagging behind other sectors.⁶⁶

66 For a more engaged example of local government engaging with new ICTs, not directly observed by the researchers, see 'Solo Kota Kita' on page 32.

LEGAL OBLIGATIONS

Online challenges for local governments will become more demanding. Government regulations make e-procurement mandatory for all goods and services from 2012 (four provinces are exempted due to poor Internet access).⁶⁷ But this will be tough. In South Sulawesi, for example, only one Regency government implemented this in 2010,⁶⁸ and the majority are still reportedly unprepared. The Freedom of Information law, which came into effect in April 2010, imposes further obligations on provincial and other levels of government, which they are struggling to meet, sometimes out of simple lack of preparedness, and sometimes due to bureaucratic resistance.⁶⁹

Media⁷⁰

Media's use of SM and new ICTs can be divided into three categories: providing equivalent online versions of offline content; online marketing and outreach; and citizen journalism initiatives. Media outlets report that their social media efforts are generally highly-popular with target audiences, particularly among young people. Yet for the majority, conventional (or 'legacy') media are still the main sources they consume, with digital divide issues limiting online engagement. This is true nationally; in more marginalised communities or remote areas the differences are more acute.

This highlights the need for conventional media to serve as a bridge for audiences who cannot access online material. However this is happening only to a very limited degree: it is not generally part of conventional media approaches.

Special consideration should be paid to the role of community radio in this process. Some activities clearly demonstrate that community radio is uniquely placed to adopt and integrate appropriate SM and new ICTs at the local level. Although this is by no means a simple or 'fast-track' proposition, the examples

below show that community stations could potentially form a crucial 'backbone' upon which greater communicative capacity can be developed and sustained, particularly in marginalised communities where many of them are located.

OUTLETS ONLINE: NATIONAL

Many local outlets are part of larger national media groups, which frame priorities and constitute institutions through which skills can be consolidated and spread to the local level.

For national media generally, the most common social media activities are marketing and promotions: this especially takes place via Facebook pages and twitter accounts, not just for individual outlets but also for individual programs, with constant updates and audience comments. Several national media outlets have established a strong online presence. For news two of them, detik.com and kompas.com, lead the way as national platforms in terms of traffic.⁷¹

Online outlet Detik.com is divided into various sites; its collective traffic is therefore much larger than the ranking of its top site. It uses Facebook and Twitter for general promotional purposes, as outlined above. However given its exclusively-online presence, it has been curiously late to adopt social media more thoroughly and is now revamping its approach, establishing a social media division in late 2011. Detik has apps for iPhone, iPad, and Blackberry, with the last being most popular. It does not have extensive citizen journalism engagement, beyond receiving photos and occasional columns from contributors on specific topics. In regional areas, Detik has local reporters and has recruited some bloggers, holding occasional seminars on location for new contributors. It is in the process of establishing local portals – for example, Detik.com for Makassar – on a franchise model (however editing would still be done centrally, out of concern to protect the brand's reputation).

Kompasiana was generally acknowledged as the most extensive citizen journalism initiative among established outlets.

67 (2012) 'Ministry Upbeat over e-procurement', The Jakarta Post. Accessed February 08 2012. <http://www.thejakartapost.com/news/2012/01/06/ministry-upbeat-over-e-procurement.html>

68 The Luwu Utara government, for which it received the prestigious FIPO award for local government innovation. http://www.luwuutara.go.id/index.php?option=com_content&task=view&id=1131&Itemid=228. Accessed February 08, 2012

69 See for example the NTT study, 'Fulfilling the right to Information', www.freedominfo.org/2011/02/implementation-of-foi-law-found-lacking-in-indonesia. Accessed February 08, 2012; and Basori, W. D. (2011) Indonesia Freedom of Information law's, one year on. The Jakarta Post. <http://www.thejakartapost.com/news/2011/04/28/indone-freedom-information-law%20%80%99s-one-year.html>. Accessed February 08, 2012.

70 This refers to conventional media institutions – newspapers, radio, and T.V. With new technology, the term 'media' has clearly moved beyond that limitation, but it is used in this way here for simplicity's sake.

71 The most popular Indonesian sites are Kaskus, Detik.com, VIVAnews.com (entertainment reporting), KOMPAS, KlikBCA (from BCA bank), Detiknews, Komunitas Publisher Indonesia (advertisements), Detik Sport, Tokobagus (commerce), and Okezone.com (entertainment reporting). However most of Indonesia's online traffic is directed to international sites like Facebook or Google search, which have generic content-sharing or search functions (eight out of the top ten sites for Indonesian traffic are international, 10 out of the top 25). See <http://www.alexa.com/topsites/countries/ID> Accessed February 08, 2012.

KOMPASIANA

Kompasiana (www.kompasiana.com), from the leading print news publisher Kompas Gramedia Group, is generally cited – by journalists, bloggers, and others – as the leading effort in Citizen Journalism. Originally a column, in 2008 it became a collaborative blog for Kompas journalists, and now is open for citizens to post. It is peer-controlled – i.e. editors don't 'vet' material, although they will choose which posts to highlight – but participants will react to inappropriate contributions, which will lead to warnings for those responsible. Last year a weekly full-page selection of Kompasiana contributions was added to Kompas' regular print publication, which led to a jump in popularity for the site. It currently has around 94,000 members, with 700 posts and 50,000 hits a day (half of the hits are via HP, although only a full-site version is available, with a mobile version still to come).

Editors state that contributors from Eastern Indonesia are particularly enthusiastic, motivated by the desire to develop their region. In 2011 Kompasiana held training programs for contributors over a period of two months in 10 cities, including Makassar. (Kompas also provides training for staff of local outlets in online skills, either on location or at headquarters.)

However, locally-based Kompas group papers do not have a local version of Kompasiana, nor generally established relationships with local contributors (*Tribun Timur* in Makassar is an exception; see case study below). For example, one Kompas group editor described how his publication may find a story submitted by a local citizen in Kompasiana, and reprint it – but without a direct connection with the writer (beyond the conventional activities of letters and opinion columns).

NEWSPAPERS

For local newspapers, social media and new ICT use generally includes online versions of their printed material, and promotion through Facebook accounts; small IT teams were usually tasked with managing this, and journalists were often required to write 'breaking' stories for online portals before their

full-length print versions. However these stories were generally truncated, a deliberate approach based on the apprehension that online news sources could eat into the profitability of print: readers who wanted the full story still had to buy the paper.

An exception to this is *Tribun Timur* in Makassar.

TRIBUN TIMUR

Tribun Timur, a paper of the Kompas Gramedia Group in Makassar, has demonstrated the greatest enthusiasm among local media institutions visited, in engaging with social media and new ICTs. Targeting particularly youth audiences, it has a page for Facebook contributions in its printed version, where it reproduces select pieces that have been shared on its Facebook page. It also accepts contributions from citizen reporters, printing them in the body of the paper based only on an assessment of the story value, not on the category of 'citizen' or 'staff' reporter.

Tribun Timur has several mobile apps, including for Nokia (Symbian), Blackberry, and Android, with iPhone and iPad apps to come. These were written in-house, as software developers were largely not available in Makassar and are too expensive if sourced from Jakarta. The paper therefore requires staff to have a good basic level of computer skills and awareness as a pre-requisite; staff then access online forums to gain the skills and tools needed to develop required apps, or to take on other tasks. The paper also has a Citizen Reporter app for Android, developed by local university students who offered to carry out the task for a school project.

As with most other media outlets visited, *Tribun Timur* also promotes stories and interacts with its audience via Facebook, Twitter, and email. The paper stands out not just for its list of activities, but because of a different approach: management sees SM and new ICTs as a chance to expand its audience, whereas most print outlets restrict the level of engagement in this area as noted above; this includes other Kompas Group local papers. Nevertheless, Kompas group head office has used *Tribun Timur* staff for training in other locations.

Jawa Pos, the second-biggest newspaper publisher in the country, aims for local markets rather than national, and has a more decentralised organisational structure.

In Makassar the group runs Fajar, which combines print, radio, and local T.V. Online approaches to print include Facebook pages and Twitter accounts; providing both a pdf and browser version of the paper, and SMS polls for subscribers. It has iPad and Android apps, but no mobile browser version. The radio station includes streaming in its activities, and the T.V. station uploads popular reports to YouTube. While Fajar has a small IT team, management emphasised the difficulties in finding enough skilled local staff in this area.

RADIO AND T.V.

All commercial radio stations the researchers for this report visited had websites, Facebook pages, used SMS, and streamed their programming online (see JRKI below for community radio). The mobile app Nux Radio was commonly used (available for Blackberry and Android); outside the areas visited by researchers, some stations also write their own applications.

Local T.V. is more mixed, and is a sector undergoing change; with the economies of several regional towns expanding, it is likely to experience significant growth.⁷² Major national stations were often relayed, and therefore didn't have regional-specific uses for social media. Local stations used websites, Facebook, and so on; however these were at various levels of

⁷² Lim points out that Peter Sondakh, one of the richest people in Indonesia, has been increasing investments in local television, among several others. Lim op. cit., p. 13

JRKI (JARINGAN RADIO KOMUNITAS INDONESIA / INDONESIA COMMUNITY RADIO NETWORK, JRKI.WORDPRESS.COM).

JRKI comprises some 17 provincially-based networks totalling around 400 stations, with goals to expand (there are over one thousand community radios across the country).

SM platforms have already had a significant impact on the network's operations. Along with email lists, Facebook pages have become forums of professional support, where for example members ask for tips when producing programs on a range of topics including HIV/AIDS, domestic violence, and so on.⁷³ A small number of stations have begun streaming, although connectivity remains a problem as many are in isolated areas that lack infrastructure.

However JRKI's significance for SM and new ICTs can potentially go much further than this. Community radio occupies a unique position in Indonesia's local media scene, as it has been established and, where successful, sustained through grass-roots initiatives, not through government or business interests. As the work of Combine Resource Institute with JRKI members indicates, it is also a critical social and technical media 'infrastructure' through which efforts to apply appropriate uses of SM and new ICTs can be developed and implemented.

Community Radio as a new media 'backbone'. 'Suara Komunitas' (suarakomunitas.net) is a Combine Resource Institute-supported effort to get and share local news from existing networks. It compiles citizen reports online sourced from several locations across the country; many, but not all, contributors are also active in community radio stations. Another CRI-supported initiative, 'Pasar Komunitas' (pasarkomunitas.com), also uses ICT tools to link local farmers to external markets, again managed through community radio stations. The goal is to both increase local farmers' access to markets, and to provide radio stations with a further role that can strengthen their own sustainability. CRI is also trialling an SMS complaints gateway for local communities, again linked to community radio stations, as part of the World Bank's PNPM program.

These are some examples that show community stations could potentially form a crucial 'backbone' upon which greater communicative capacity can be developed and sustained, particularly in marginalised communities where many of them are located. A further example, again combining local stations and CRI, is Jalin Merapi, outlined under Civil Society below.⁷⁴

⁷³ There are several JRKI Facebook member pages, including specific ones at a provincial level and others across the whole network

⁷⁴ The role, in this example, of community radio points to a further regulatory restriction. The great majority of community radios still lack formal licenses, despite long campaigns to achieve this. They are also hampered by very low-power broadcast, which restricts the communities they can serve, and have access to limited frequencies. This is pertinent to social media and new ICTs: existing media are often an important bridge to online resources for communities with limited connectivity, and as the suarakomunitas example shows, they can form a platform to bring new technology into community use. In short, at all levels – technical implementation, use, and practice – new ICTs will not expand in isolation to the rest of the communication environment, but together with it.

functionality, with infrastructure and – again, especially – skill availability the major constraints in their development.

COMMUNITY RADIO

Special consideration should be paid to the role of community radio in the introduction of new media tools within communities. Both community radio stations' own activities, and some example collaborative efforts between stations and Combine Resource Institute, point to ways in which community radio can help test and potentially integrate appropriate SM and new ICTs at the local level.

INDEPENDENT CITIZEN JOURNALISM

There is a dearth of independent citizen journalism sites (that is, sites that predominantly rely on citizen journalist contributions and are not part of established media institutions). The most prominent in the areas visited is Panyingkul.

PANYINGKUL

Panyingkul (www.panyingkul.com) is an online citizen journalism initiative, first promoted across different local university campuses in 2005, with the specific goal of occupying the fresh 'journalist space' enabled by new technology. Reportedly largely funded by donations, the site paid contributors IDR 50,000 per article (approximately USD 5.5). While a listing of traffic numbers was not immediately available, consistent feedback from a variety of sources indicates it gained profile and readership, and was a good deal more than 'proof of concept' for an online citizen journalism portal.

It is still nominally functioning; however at the time of writing, apart from one contribution uploaded late January 2012, the last stories were uploaded in August 2011. Former contributors cited the fact that the founders and editors have spent a long time working outside of Makassar, including in Japan and now Australia as a reason for this. However to date, despite some smaller efforts, no one has ventured to establish a similar initiative, pointing perhaps to an ongoing need for leadership in the area.

Local Civil Society⁷⁵

'Civil society', including at the local level, is an extremely broad and diffuse category; here it refers primarily to non-government organisations focused on community development and rights-based issues. Nugroho⁷⁶ has produced the broadest overview of civil society's use of SM and new ICTs to date. In addition to this established research, NDN offers some specific observations gathered from the locations visited, with the hope that they will suggest possible directions of action and further lines of enquiry.

Jalin Merapi is perhaps the most high-profile and multi-faceted example of civil society using social media and new ICTs. Once again CRI and community stations linked up in this effort, but the number of participants was much broader than that.

⁷⁵ Widodo (2011) in a study of three NGOs, notes that the use of web-based communications are used internally by all, but that public outreach (or participatory democracy practices) are often quite limited. Widodo, Y. (2011), The Experience of NGOs in Indonesia to Develop Participatory Democracy by the Use of the Internet, in Lim and Nugroho (eds), *Special Issue on Social Implications of ICTs in the Indonesian Context*, *Internetworking Indonesia Journal*, Vol. 3, No. 2, 2011. <http://www.internetworkingindonesia.org/Issues/Vol3-No2-Fall2011/ij-vol3-no2-fall2011.html>. Accessed March 19, 2012

⁷⁶ Nugroho, *op. cit.*

JALIN MERAPI.⁷⁷

The response to the Mount Merapi volcano eruption in 2010 in central Java is perhaps the most dramatic and extensive example of civil society in action with SM and new ICTs in Indonesia. This response depended not just on the adoption and deployment of new technology, but layers of community networks and practice built over previous critical experiences of collaboration.

Central Java suffered an earthquake in 2006 with extensive damage and fatalities. CRI and three local community radio stations had cooperated in providing critical information at that time; the stations formed an ongoing network, Radio Komunitas Lintas Merapi (RKLM), who maintained regular quarterly meetings after the disaster. RKLM also developed relationships with a network of volunteers who worked among communities surrounding Merapi, raising awareness in face-to-face gatherings of disaster risks and preparedness measures.

When the 2010 eruption occurred, CRI set up the operational headquarters of Jalin Merapi, which gathered information, and disseminated and coordinated requests for urgent assistance, via Twitter, Facebook, SMS short code, and RKLM. A dedicated website, merapi.combine.or.id, brought information together and included an interactive map of the unfolding situation. The level of rapid coordination included volunteer efforts that provided everything from large-scale food provision, to logistical transport, to emergency evacuation for those in need. Data-management and verification systems were key in CRI's efforts; for RKLM, community radio networks across the country also provided assistance with personnel and equipment. The on-the-ground volunteers that had been working amongst communities at risk were also crucial in providing and responding to information.

This role continues: webcams on the website and regular RKLM investigations and reports monitor Merapi today, with particular concern over the amount of debris and loose ash still gathered on the mountainside which can easily cause dangerous landslides and block rivers in the event of heavy rain.

The Jalin Merapi response met urgent humanitarian needs – independently of government, which was caught flat-footed and unprepared. It is an example of local-level communicative capacity strengthening an emergency response. This had been built up by experience, resting on established community networks, and the ability of those with technical and software developer skills to adopt and integrate new technology within those networks. Few locations have this combination of skills and networks, but – whether in disaster situations or elsewhere – these features of Jalin Merapi can point to some of the broader principles to enabling effective adoption of SM and new ICTs in ways that strengthen communities at the grass-roots level.

⁷⁷ Tanesia, A. and Habibi, Z. JALIN Merapi Community Information System in response to Mount Merapi's 2010 Eruption. *AMARC*. http://www.amarc.org/documents/Caribbean_Conference/CR_ResponseJALIN_MerapiEruption_EN.pdf. Accessed March 19, 2012.

CIVIL SOCIETY: DEVELOPMENT FOCUS

In the locations visited, a limited number of development-focused non-government organisations have been experimenting with SM and new ICTs. Relatively few appear to have the skills within their networks to research or develop tailored solutions that are appropriate for their particular context, goals, and target groups, which means they generally adopt 'external' models that may or may not be appropriate.

For example, one project in support of farmers in South Sulawesi used mass SMS messaging to inform the farmers

of the local market prices for their product, a tool that has been applied in many places around the world. But the costs of sending frequent message updates proved prohibitive, and market prices for this product were relatively stable, resulting in reduced impact for the resources spent in providing the information. The service was discontinued for these reasons. However individual farmers still occasionally send SMS messages to project staff querying any changes in price, indicating that the information itself can be useful – it's simply the frequent mass-delivery method that was problematic. One

possibility may have been to use Interactive Voice Response, whereby individual farmers could access recorded messages with price information as and when they needed it, for the cost of a phone call – but the organisation had not had the chance to research options such as this, or the possibility to access the technical support to trial it.

Sharing local knowledge, spreading local skills. Other uses of ICT and social media for development purposes simply aims to use platforms to share as much knowledge as possible.

NTT ACADEMIA FORUM

The NTT Academia Forum (www.ntt-academia.org) was established in 2004 by students from the NTT province, who were studying both overseas and elsewhere in the country. Highly-respected and currently with more than 600 members, it aims to be a repository of and platform for sharing knowledge and expertise that can contribute to the province's development; it also provides information about scholarships abroad. In a province with very poor communication infrastructure, it aims to use whatever tools possible to make an impact.

The NTT Academia Forum is focused on sharing knowledge and information about development; it does not have a focus on ICTs specifically. It is difficult for organisations to access this expertise. This is not surprising: gathering and sharing knowledge and skills in this area is a challenge, and is not the prime focus of community development organisations. However initiatives (like NTT Academia Forum) demonstrate some ways in which this could be supported.

Another of these is Bakti (<http://batukar.info>): based in Makassar, its mission is to gather, support, and share knowledge of better development practices throughout eastern Indonesia. Holding strong links with local and provincial government, civil

society organisations, and local media, it provides unique functions that network and foster, through greater awareness and appreciation, effective local development practices. Bakti's mandate is much broader than the use of SM and new ICTs: while it shares examples of local practice it is not by any means aiming to 'incubate' localised new technology initiatives. But the possible development roles of social media and new ICT could fall very comfortably within the ambit of an organisation such as that of Bakti; it represents a platform through which local-local links and positive practices can be disseminated.

Appreciation for Bakti's role in local development has resulted in its replication elsewhere: in Kupang the NTT's provincial government now hosts the BAPPEDA Resource Centre, which aims to serve similar functions and is part of the same knowledge-sharing networks; further similar institutions are planned throughout the east.

CIVIL SOCIETY: RIGHTS-BASED FOCUS⁷⁸

A noted feature during research was the approach human rights and advocacy NGOs took towards SM and new ICTs. Among the organisations met, rights-based or advocacy organisations often appeared to explore the tools available to them to a greater degree. This initial observation is offered tentatively as a possible direction for future enquiry, given it is based on a limited number of encounters and so would benefit from further interrogation. If it holds true across other locations, it is possible that innovation and approaches taken by rights-based organisations can hold lessons for other sectors in civil society.

Some examples from Kupang provide good illustrations of this. Despite a challenging lack of infrastructure and a similar lack of resident technical specialists, organisations including PIKUL, PIAR, and KoAR have consciously used whatever tools they can find to forward their work.

⁷⁸ The definition of 'rights-based' and 'development' organizations is necessarily broad; many organizations fall into several categories at once. It is used here for the purposes of presentation, to highlight a particular feature which researchers encountered.

NTT RIGHTS-BASED EXAMPLES

A major program of PIKUL (www.perkumpulanpikul.org) is identifying and working with local 'changemakers', or individuals who may not hold a formal leadership role, but initiate change, that can help drive their communities forward and find solutions to problems. Part of this has recently included providing grass-roots citizen journalism training, which will later incorporate the use of mobile technology and video. The goal is not only to help tell stories, but to provide means to link 'changemakers' together so that they can support each other. PIKUL has a rights-based approach that aims to integrate civil-political, and socio-economic rights based on communities' sovereignty over their own resources, which drives their evaluation and selection of participating 'changemakers'.

PIAR NTT (Pengembangan Inisiatif dan Advokasi Rakyat) is a human rights advocacy organisation. It doesn't use its Facebook page extensively; however several PIAR staff members maintain individual blogs as both a source of specialist information in their area of work, and a means of linking with others.⁷⁹ This includes links with rights campaigners and advocates in other locations across the country. Sometimes this network has allowed PIAR members to provide support to other advocacy groups who want to start blogging on key issues but don't know how. It is an example of blogging networks based on interest, rather than the most common and high-profile networks based on location and local identity (see Blogger Networks, below). PIAR also uses mobile phone and other video documentation of abuses as part of its work.

KoAR (Komunitas Akar Rumput, or Grass-Roots Community, koarntt.org) is as its name suggests less an NGO and more a network or gathering of especially youth in Kupang. They have used SM and new ICTs in a number of ways. During floods near Atambua in 2010, KoAR members used Facebook⁸⁰ to call for local donations due to slow government action, and quickly collected 20 tonnes of rice to distribute. They have also used Facebook to campaign for NTT citizens who have found hardship or abuse after travelling overseas as migrant workers. Campaign strategies include aiming to gain national media exposure, after which local media may pick up the story, and push local government to act. Current activities include generating local discussion forums at the neighbourhood level to get public input on Kupang's development priorities, and liking this with online discussion and networks.

KoAR members say SM and new ICTs are especially vital for NTT and Kupang youth, who lack access to public forums. They have actively sourced training in citizen journalism from contacts throughout Indonesia, and some members have begun to skill themselves up, enough for example to design their own website. They are an example of a social group seeking to use SM and new ICTs to gain skills and open space to advocate on key issues, notwithstanding the obstacles of poor local communication infrastructure.

79 For example Director Sarah Lery Mboeik's blog is Pro Rakyat, <http://www.lerymboeik.blogspot.com.au>, staff member Paul Sinlaeloe maintains a blog 'Lawan Koruptor' or 'Against the Corrupt', www.paulsinlaeloe.blogspot.com.au which includes a roll of similar blogs. Accessed February 08, 2012.

80 They have two accounts, as they have exceeded the number of friends on their first one; the second is at www.facebook.com/AkarRumputNTT. Accessed February 08, 2012.

Tech and Developer Networks

This sector showed the greatest divergence between the two regional locations visited, Makassar / South Sulawesi, and Kupang / NTT. Makassar is host to a number of informal and semi-formal networks of developers; in Kupang, these skills are, according to research sources, extremely limited.

This is entirely in keeping with the respective differences in infrastructure. While South Sulawesi has many areas where

infrastructure is severely lacking, it also includes areas, particularly in the capital and neighbouring town of Maros, which have effective Internet access. There is no comprehensive survey of connectivity infrastructure in the province (local ICT technicians themselves sometimes struggle to find this information), but anecdotally some areas are clearly more connected than other. (For example, *Tribun Timur* identifies six regencies as having greater connectivity, because it is from these locations that they receive most Facebook comments and contributions.)

Kupang and NTT, meanwhile, has some of the lowest levels of Internet penetration and telecommunications coverage in the country, along with some of the lowest average income levels.

In Makassar, developer networks themselves are fluid: different individuals met by the researchers identified themselves as part of Relawan TIK (literally, 'ICT Volunteers'; see profile below); Linux User Groups; Android User Groups, and so on, and also as part of commercial and professional interest groups such as Internet café owners and ICT engineers. The functions of the different groups vary: some define themselves as providers or incubators of professional capacity, sharing knowledge and skills. Others were presented more as 'fan clubs', for example holding events to celebrate the launch of a new software product on their preferred platform.

There are several individual connections between developer networks and other sectors included in this report. However those connections are not necessarily deep nor, more importantly, are they positively exploited. For example, despite the formation of Relawan TIK which has, as one of its functions, the role to support the use of ICTs in local regions, developers say local government bodies have been unable to see or understand how to take advantage of this. While some civil society groups (for example Bakti, which maintains a resource centre and open wi-fi access) have roles for ICT staff, most do not, and local civil society connections with technical networks appear often limited, despite some exceptions.

Even if local government, civil society, or other organizations were to focus on more fully exploring the potential of SM and new ICTs, the need for technical skills would very quickly be much greater than current networks can provide.⁸¹

In Kupang and NTT, on the other hand, developer skills are far lower. Relawan TIK has not as yet been established there, and there are no established developer groups of note (one developer related that he has attempted several times to establish Linux and other user groups, but has not had success); available developer skill levels are correspondingly low.

Local developer skills, and their connections with other sectors of society, can become a prime motor for new, locally-tailored, and sustainable uses of SM and ICTs. Initiatives like Relawan TIK, and the increasing connections between different groups in places like Makassar and nationally, demonstrate that these are gradually being put in place. However the lag behind the need is significant.

81 A potential useful first step may include a basic overview or inventory of the breadth and depth of locally-available skills, along with other strategies already noted for civil society above; this could then be integrated into locally-relevant and sustainable initiatives.

RELAWAN TIK

Relawan TIK (relawan-tik.org) or ICT Volunteers is a relatively new initiative that aims to fill critical skills gaps in ICT support and software development.

Indriyatno Banyamurti, Relawan TIK's chairman, explains it was initiated by the government to establish a large ICT awareness-raising organisation. However with input from experts in the sector that this was impractical, given existing skill levels and the dynamics of working with a volunteer base, it is now growing in small steps. Current membership numbers around 350 with a mix of skills that are currently being mapped.

Some programs are funded by the government, but not a core office; further funding decisions are due in the latter part of 2012. Activities vary, but can include Internet training and awareness events at local schools (including the ICT Watch-developed Internet Sehat program), government offices, and so on. Relawan TIK members confirm that awareness of ICTs is low, including among civil society organisations.

Relawan TIK – Eastern Indonesia (covering Bali to Papua) comprises around 100 volunteers to date, with several geographic areas yet to be covered. Volunteers overlap with a number of other groups, including Linux user groups, Kaskus, and so on, and are still consolidating structures and activities. These can include support for local government offices that, for example, may have computers and software, but not the skills to connect, maintain, or repair them.

By and large the awareness of the support the network can provide is low within local government, and there is still limited serious engagement with civil society organisations. However despite the early and somewhat uncertain days, Relawan TIK represents an encouraging and meaningful step to engage with the regional digital skills divide.

Blogger Networks⁸²

Indonesia has an estimated 2.7 million bloggers, over 5.3 million blogs, and more than 25 locally-based blogger communities documented so far.⁸³ A marked feature of these communities is that the most prominent are not defined by interest or topic, but by place: several major towns have one or more blogger communities named after and established specifically for its location. Blogger communities form an important 'nexus' or 'social infrastructure' for SM and ICT at the local level; they are motivated, active, and often carry out the on-the-ground organisation for events in which national-level groups participate, including forums or workshops on areas related to online skills.

82 Triastuti and Rakhmani explore the nature of blogger identity as framed by the construction of local cultures within the Indonesian nation by the Suharto regime, and find a direct continuation that emphasizes several localized forms of culture and ethnicity Triastutie, E. and Rakhmani, I. (2011) *Cyber Taman Mini Indonesia Indah: Ethnicity and Imagi-Nation in Blogging Culture*, in Lim and Nugroho (eds), *Special Issue on Social Implications of ICTs in the Indonesian Context*, *Internet-working Indonesia Journal*, Vol. 3, No. 2, 2011 <http://www.internet-workingindonesia.org/Issues/Vol3-No2-Fall2011/ijj-vol3-no2-fall2011.html>. Accessed March 19, 2012

83 ICT Watch presentation, hosted by Saling Silang: www.slideshare.net/donnybu/indonesian-blogsphere-2011. Accessed February 08, 2012

Blogs themselves are overwhelmingly about writers' private lives, and the interests expressed by bloggers met were by and large social. 'We blog so we can meet for *kopi darat*' or literally, 'coffee on the ground', is a common phrase (some individuals commented that once they began meeting their blogger peers regularly, they found they had little reason left to write).⁸⁴ Some groups take on campaigns especially around cultural and social issues in their location. In Makassar, this included the *Makassar Tidak Kasar* (roughly, 'Makassar is not Uncultured') campaign, promoting their hometown's image against perceived unbalanced national media coverage that emphasised violent protests.

84 The desire to connect with as many people as possible, both online and offline, was frequently asserted as a core motivation, in fact as a defining 'Indonesian cultural characteristic', and used to explain the enormous jump in the use of Facebook, Twitter, and so on. Interrogating popular perceptions and cultural norms is far beyond the scope of this paper, but it is notable that this idea has become widespread in all locations visited; it is part of the 'narrative' many participants used in explaining their online engagement.

BLOGGER COMMUNITIES

Anging Mammiri (angingmammiri.org) is the largest gathering of bloggers based in Makassar, established in 2009 and now with several hundred members; they communicate internally through an email list. Members say the motivation behind their group is to get together and promote Makassar; each has their own blog as well as contributing to the collective website. Discussion focuses on social issues, not politics (unless one issue becomes particularly 'hot'). Different members have initiated specific activities, for example the 'Makassar Tidak Kasar' campaign.

They have participated in and been the prime local organisers of a number of local events that link to nationally based organisations, including ICT Watch's Internet Sehat campaign, and Saling Silang's social media events. A small number of members generate income by writing for online businesses (in particular astamedia.com) that require freelancers to produce content on particular themes. Many members are also part of technical communities, including Linux Users and Relawan TIK, and of social communities including backpackers, photographers, and more. However engagement with a range of technical issues, ranging from online security to tools including interactive maps or SMS gateways, is low and not generally a focus.

Rumah Blogger (www.rumahblogger.com) in Solo, central Java, is an open house for bloggers and those interested in learning about Internet technology. It is a space shared by its original NGO occupants, with free connectivity provided by telecommunications company XL. Activities undertaken by Rumah Blogger participants include training the blind how to use computers with text-to-speech tools, and linking with local businesses to train them in SM and ICT use. There are also other workshops delivered by volunteers, for example in citizen journalism, or building Android apps. Most participants are university students.

Rumah Blogger represents a collaboration between civil society, local business, and those skilled in SM and new ICTs that is far closer than usual. The group's objectives go explicitly beyond promoting their location building social networks, or marketing, and aim to engage directly with social and economic development issues.

CONCLUDING REMARKS AND RECOMMENDATIONS

There are several examples, innovations, and ‘proof of concept’ uses of social media and new ICTs among communities throughout Indonesia, for advocacy, information access, disaster response, community development, and much more. Yet notwithstanding a few significant cases and high-profile campaigns, in general they lack the scale and range that can demonstrate extensive, sustained impact. However the space is vibrant, and growing, and this will inevitably change as more and more initiatives accumulate experience and skills.

The range of experiences so far, and the shape of overarching structural challenges, point towards several elements that need to form part of any intervention or support for the sector.⁸⁵

National level

- **Engage with efforts to support national infrastructure for connectivity.**

This can cover a range of activities: the stalled Palapa Ring, if it once more gains momentum; the effective collection and use of Universal Service Obligation contributions from telecommunications companies; exploring means to encourage private telecommunications investment in marginalised areas; and possibly government-led projects or public-private partnerships to overcome ‘last-mile’ barriers to access. However in all cases, an emphasis on effective design and transparent administration of activities must be paramount.⁸⁶

⁸⁵ See also Lim, pp. 24-29, *op. cit.*, (focusing especially on measures to support media diversity and access, free speech, and political independence) and Wattegama and Soehardjo, pp. 38-39, *op. cit.*, (focusing especially on measures supporting telecommunications market efficiency) for more detailed recommendations on their reports’ respective areas of inquiry.

⁸⁶ Support for national infrastructure should also in its design critically consider how it is anticipated this will impact on citizen online access. For example, Rohman and Bohlin (2011) conclude that geography – the availability of infrastructure – is a greater determinant in the takeup of online activity than income levels. Such research can help frame infrastructure efforts. Rohman, I. K., and Bohlin, E. (2011). An assessment of Mobile Broadband Access in Indonesia: a Demand or Supply Problem? In Lim and Nugroho (eds), *Special Issue on Social Implications of ICTs in the Indonesian Context*, *Internetworking Indonesia Journal*, Vol. 3, No. 2, 2011 <http://www.internetworkingindonesia.org/Issues/Vol3-No2-Fall2011/ijj-vol3-no2-fall2011.html>. Accessed March 19, 2012

- **Promote appropriate and transparent regulation and governance of the telecommunications sector.**

As Wattegama and Soehardjo’s study points out, meaningful progress has been made in this area. However many challenges remain, including the administration of frequencies, with some designated frequency uses overlapping; the dangers of a regulatory ‘super-body’ in the upcoming Media Convergence Bill; and the lack of transparent competition and perceived corruption in the sector more broadly.

- **Promote Indonesia’s involvement in International regulation and internet policy efforts which impact views, knowledge sharing and policy developments at home, including ISOC, the IGF, ITU and other UN entities such as the UN Human Rights Council working group efforts on Internet access and rights.**

Support monitoring, advocacy, and information sharing among Indonesian organizations and further strategies against potentially-damaging laws controlling online speech.

As noted, these range from criminal and civil defamation, to over-zealous and unclear anti-pornography laws, to vague references to ‘national security’ that are open to abuse.

- **Support and promote large-scale national efforts to boost online awareness and literacy.**

Some initiatives have started on this front, ranging from Onno Purbo’s *SchoolOnffLine*, to ICT Watch’s *Internet Sehat*, to some of Relawan TIK’s activities. However a broader effort is needed to provide both current and future generations with the skills and awareness they need to take advantage of these resources and tools as they become available. This includes fostering debate and awareness of the issues at

stake, beyond what often appears to be current market- or marketing-oriented discourse.

- **Encourage the development of appropriate tools and services by the private sector.**

Many private enterprises are naturally focusing efforts in these directions. However as highlighted by Wattagama and Soehardjo, further targeting of services such as e-money to marginalised areas has the potential to bring greater benefits – but these needs appropriate platforms and regulation if it is to take place.

- **Encourage and support the development and localization of appropriate open-source tools that can – sustainably – grow and bias towards meeting Indonesia's development goals.**

Local level

- **Build on existing local structures.**

This is the single strongest principle demonstrated by local case studies: experiences ranging from *Jalin Merapi* to *Tribun Timur's* outreach strategies to *KoAR's* flood relief, all rested on *existing networks and communities' established communicative capacity*.

Indonesia is one of the most diverse nations on earth, and as demonstrated through the case studies here, local practice in ICT and SM use varies in response to many local influences, often inter-related, ranging from available infrastructure, technical skills, local leadership, and existing organisations and their already-established development or advocacy activities. This is particularly true in places with specific conflict or post-conflict dynamics – for example Ambon or West Papua, which involve particular contexts and likely particular use of ICT and SM tools and platforms. Any initiative must be based on a solid understanding of and integration within local realities.

Local structures are crucial to the appropriateness and sustainability of any interventions or targeted support. These structures may range from conventional commercial media institutions (such as *Tribun Timur*), to NGOs (such as CRI or PIKUL), to local youth networks (such as *KoAR*), to advocacy networks. The role of community radio as a communication platform that can both link with and help foster other local ICT communication capacities deserves particular attention. However in all cases, the range and model of activities must be relevant and appropriate to local needs and conditions.

- **Promote and support networks of skills, needs, and awareness.**

Support for the use of ICT or social media for governance, advocacy, or community development should avoid approaches that emphasise particular models or specific tools. An understanding of and familiarity with models and tools are essential, but local contexts vary too much, and can change too quickly, to rely on this alone.

For these reasons, skills networks are critical – particularly between software developers and ICT technicians, together with civil society, local government, or local businesses. As highlighted earlier, the role of local leadership is also critical, whether that be provided by an individual or an organisation.

Effective skills networks need to be supported between:

- groups and networks at a local level
- local and national groups and networks
- national and international networks, particularly throughout the region.

As noted, this is happening, but so far on a small scale relative to the need.

- **Integrate skills with models and tools**

As noted throughout, models and tools are essential, but not enough. Activities supporting the use of ICT and Social Media in governance, advocacy, or community development need to integrate this into the design. A useful 'formula' could be:

*models and tools + skills and awareness = trial, adaptation, and impact

If local groups have access to models and tools, but incorporate a level of skills and awareness, they are more able to choose the models and tools most relevant to the local context, test them, and change or adapt them as most appropriate.⁸⁷ *Internews* is piloting some activities based on this approach through its Media and Innovation Labs;⁸⁸ initiatives by other groups and organisations are developing a range of further approaches.

- **Capture experiences, share insights, apply lessons**

There are many positive experiences and 'proof of concept' examples in the use of Social Media and new ICTs among

⁸⁷ This also needs to rest on a more nuanced understanding of digital literacy and engagement than is typically the case. As shown by the nature of many citizens' use of Facebook, for example, this cannot simply be inferred from the number of people accessing a given service. Though this use is significant, 'literacy' is a much more profound concept than simply logging on to one platform; it incorporates the ability and capacity to navigate and develop further uses of the range of online tools and resources available.

⁸⁸ See for example: <https://www.internews.org/our-stories/program-news/innovation-labs-attract-wide-public-interest-jordan>, and <https://www.internews.org/our-stories/press/kabul-innovation-lab>

communities, and these will only grow. Nevertheless current levels of fragmentation, and the early stage of the sector, mean that the more practitioners can learn from each other, the faster the sector can develop and the richer the exchange of experiences, and the subsequent public awareness, can become. Both among community groups, national and local NGOs, government offices, local and national media, the private sector, and international donors and actors themselves all have positive experiences that can cross-fertilise and inform future initiatives.

In all cases, however, the terms of 'success', 'failure', and 'impact' need to be developed critically, and emphasis to two areas in particular: the impact of activities on identified needs on the ground; and the skills, awareness, and networks developed by participants during those activities, which can support further initiatives in the future.

- **Sustain appropriate research, monitoring, and evaluation**

This is needed both as part of specific activities, and across the sector as a whole.

The sector is changing and will continue to change, in some

places rapidly, in others more slowly. Ongoing data, both quantitative and qualitative data, will be critical to maintain an understanding of how the sector is evolving as a whole, to capture any principles or experiences underlying effective activities, to identify underlying misconceptions or inappropriate approaches, and simply to continue sharing the increased understandings and lessons learned. The likely speed of change means capturing and sharing such knowledge and awareness will remain as much a challenge as it is a necessity, and deserves a specific focus.

Many valuable initiatives are taking place, and this will only multiply. In many ways this is an ideal scenario in which to provide further support: small initiatives, driven from within communities and existing networks and institutions, have a far greater chance at being sustainable than importing pre-established models or tools. Support needs to combine the local and the national: building networks and skills to support initiatives on the ground; but also strengthening advocacy and monitoring that targets national-level development programs and free-speech legislation, which make up the context within which such initiatives take place.

APPENDIX 1:

FURTHER EXAMPLES OF PRACTICE

Numerous case-studies are included in this report. That's because many advances in SM and new ICT use are extremely localised; it is difficult to be 'representative', which means a greater number of cases can give a better sense of the range of practice.

The researchers only visited a limited number of locations, however, and there are naturally many more examples from across Indonesia. Some examples were raised repeatedly by various sources; and although researchers were unable to investigate these, a few are included here in the interests of presenting as wide a variety of cases as possible for any future enquiries.

Solo Kota Kita (solokotakita.org) is a pilot project that involves participatory mapping to identify, and present in an interactive portal, the needs of neighbourhoods in Solo city. It brings together volunteer mappers, town planners, and NGOs among others, and aims to boost citizen understanding of and participation in the formulation of local development priorities.

In Waingapu in East Sumba, AusAID's ACCESS (Australian Community Development and Civil Society Strengthening Scheme) program together with local NGO and Community Resource Center partners, use mobile phones and Facebook to collect community responses to and complaints on public service delivery. These are then conveyed to local public authorities; the effort is integrated with the use of local radio. In further examples, another AusAID-supported effort the Australia-Indonesia Facility for Disaster Reduction or AIFDR, as well as ACCESS, have begun testing Open Street Maps as an example of a new ICT tool that allows greater community engagement.

The World Bank's extensive Program Nasional Pemberdayaan Masyarakat (PNPM) community development program includes a broad network of community teams; many of these have established Facebook pages. As one part of increasing social media integration and data use in its work, the Bank is now geo-mapping those pages, which incorporates notification when updates are added to any given page: geocommons.com/maps/112071

Prima Donna Community Radio in Lombok has actively monitored and reported on implementation of community development projects, including the World Bank's PNPM. On occasion these reports have found problems, for example in delivery of appropriate materials. The station's broadcast footprint is too small to reach a wide audience; however it also posted details online, which were then picked up by Lombok newspapers and resulted in action from the local government to rectify the situation.

ABOUT THE INTERNEWS CENTER FOR INNOVATION & LEARNING

The Internews Center for Innovation & Learning supports, captures, and shares innovative approaches to communication through a creative program of research and development worldwide. Founded in 2011, the Center seeks to strike a balance between local expertise and needs and global learning in order to develop a comprehensive approach to understanding and catalyzing information exchange.

In Internews' 30-year history of promoting independent media in more than 75 countries around the world, the last five years have arguably seen the most changes in the global media and journalism environment. Across all Internews programs, adoption of cutting-edge technology is integral to advancing the work of the journalists, bloggers, citizen reporters, scholars and others who provide a vital interpretive role for their communities. The Internews Center for Innovation & Learning deepens and enhances our capacity to link existing expertise to research that helps define, understand and monitor the critical elements of changing information ecosystems and to pilot projects that apply and test the data, platforms and digital tools to meet information needs of specific communities. This is far from a solo endeavor. A network of partners, ranging from technologists to academics to activists is critical to creating and sustaining a dynamic and iterative collaborative space for innovation. For more information visit <http://innovation.internews.org>.



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