

## **Interim Report:**

### **Landscaping Mobile Social Media and Mobile Payments in Indonesia**

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#### **Introduction and overview**

This research project, with teams in the cities of Surabaya (East Java province, Indonesia) and Makassar (South Sulawesi province, Indonesia), began in late May 2012. This report is based upon data collected up to July 15, 2012. In these first six weeks of the project, the Surabaya team conducted 5 interviews and the Makassar team conducted 7 interviews. Below, we summarize five key findings from this research to date. First, however, it will prove helpful to provide an overview of the social and technological changes to which these findings speak.

#### *A thought experiment*

Imagine, if you will, a world centered on Indonesia rather than the United States. While the USA is the third most populous nation (after China and India), Indonesia is the fourth, and its vast archipelago of islands stretch just a bit further than the distance from California to New York. Like the USA, Indonesia is a multicultural country, with over 300 ethnic groups. Like the USA as well, religion is an important dimension of society, save that with a population that is about 88% Muslim, Indonesia has more followers of Islam than any other country. Another parallel with the USA is that Indonesia was a society of mobility before the Internet: at the center of the great trade routes linking Europe, Africa, the Arab World, and India with China, Japan, and East Asia more broadly, Indonesia has always been a hub of commerce and the adoption of new ideas. Across Indonesia, small traders—maritime, urban, and overland—have been crucial to economic dynamics, and from the early years of the colonial encounter in the 15<sup>th</sup> and 16<sup>th</sup> centuries, European observers marveled that so many of these traders were women. Finally, like the USA, Indonesia fought a revolutionary war—though in this case it was in the mid-twentieth century to escape the Dutch—and tensions between unity and diversity, sameness and difference, strongly shape the challenges its citizens face in the contemporary period.

#### *Online commerce in Indonesia: from (rare) desktop to (everywhere) mobile*

Since the adoption, use, and experience of any technology is shaped by context, this brief historical context helps set the stage for how Indonesia is being transformed by online commerce. This vast archipelago nation has historically had a low rate of landline telephone use. Telephone lines were controlled by state bureaucracies, and citizens could wait years for a phone line to be extended into their neighborhood, much less their home. This was particularly the case outside of Java and Bali. As noted in our first blogpost, even in 2005 landline ownership was estimated at only 25 percent, and by 2010 that had dropped to 11 percent.

In the Indonesian language, *warung* refers to an informal food stall. For some time in Indonesia, cafes have been referred to as *warkop*, from *warung* + *kopi* [coffee]. As telephones became more available in the mid-twentieth century, a new phenomenon

arose, the *wartel* (*warung* + *telepon* [telephone]). These were small, independently run shops that could have as few as three or four telephones to forty or more. Each phone was in a small stall, and a counter (usually a red LED display, similar to what you might find in a taxi) below the phone would count up the cost of the call, moving more quickly if the call was *interlokal* (“interlocal”—that is, outside the local area) or international. On completion of a call, the patron would go up to a staffperson; a nearby dot matrix printer would print out a summary of the call and its cost, and the patron would pay. These *wartel* provided a solution to the difficulty in obtaining telephone lines to one’s home (save for the wealthy) and often became sites of neighborhood socializing. Since 1992, *wartel* owners have been organized in the Association of Indonesian Wartel Entrepreneurs (*Asosiasi Pengusaha Wartel Indonesia*, or APWI).

In the 1990s, a further development occurred with the rise of the *warnet* (*warung* + *Internet*). Like *wartels*, *warnets* were (and are) usually owned by small entrepreneurs, and respond to the difficulty of domestic access to technology—for if telephone lines are difficult to obtain, then Internet connections depending on telephone modems are harder still, not to mention the cost of a desktop computer. The term *warnet* seems to have been coined around 1997,<sup>1</sup> a year after the first one was opened in the city of Bogor, outside Jakarta, and the Indonesian *Warnet* Association (*Asosiasi Warnet Indonesia*, or AWARI) was founded in 2000.<sup>2</sup> *Warnets* became sites for everything from checking email and posting on blogs to gaming and pornography.

While *wartels* and *warnets* still exist, the rise of mobile devices has fundamentally altered the social relationship of Indonesians to technology, specifically online services, with significant and still-emerging consequences for commerce. Such mobile devices include laptops. Because laptops are cheaper than desktops but also more portable in a context where many Indonesians live in relatively cramped quarters, they have had an impact on how Indonesians understand online commerce and socialization more broadly. However, laptops are still relatively expensive for Indonesians, and it is the rise of mobile phones, including “smartphones” like Blackberrys but also simpler phones, that has drastically reshaped the localizing “*warung*” relationship Indonesians have historically had with telecommunications technologies.

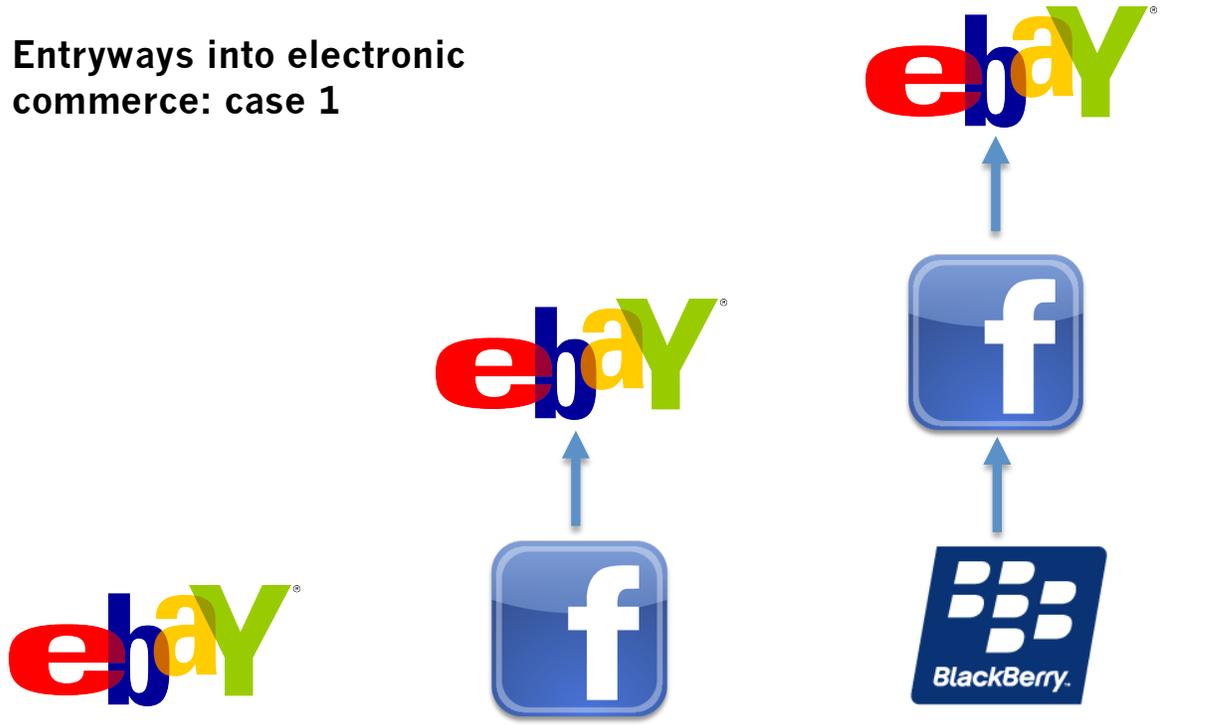
### **Five key preliminary findings**

With this opening discussion in mind, let us now turn to five key preliminary findings from the research teams based in Surabaya and Makassar. The data obtained thus far is already so rich and extensive that summarizing it in full would be impractical. It is also too early in the research to hazard definitive answers. Instead, we see these five key preliminary findings as identifying central questions for further collaborative investigation.

#### *1) Entryways into electronic commerce*

One key early finding is that Indonesians tend to follow specific pathways into electronic commerce that can move across platforms and be identity specific. Consider the following case study:

## Entryways into electronic commerce: case 1



Informant #1, a housewife, first got to know about online shopping in 2009 through friends who were buying things via eBay. In a sense, eBay is functioning at this point as a social network.

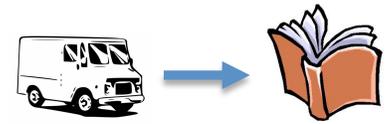
Later, as Facebook became ubiquitous in Indonesia, Informant #1 began using Facebook for learning about what she might purchase.

There was also a shift from desktop computing to Blackberry mobile phones as a means of networking and shopping.

What is striking here is that Facebook, the most recent of the three technologies in question, came after the use of eBay, while Blackberry, often stereotyped as an un-trendy mobile platform in comparison to iPhones and Android devices, was the “newest” technology taken up.

Among the informants interviewed thus far, the only one to use Twitter was identified as a gay man. While more research is clearly needed, this may suggest that certain online technologies can be associated with specific identity groups. However, regardless of this possibility, this informant (#2) provides another fascinating case study of how such entryways into electronic commerce can show up at the scale of a single transaction:

# Entryways into electronic commerce: case 2



Informant #2, a gay university student, first conducted a transaction via Twitter when he was looking for a book for his thesis. He found an active tweeter whose profile indicated he had written a book relevant to the student's thesis. The informant then sent a "Direct Message" through Twitter, asking where he could order the book.

The author then tweeted back an email address to continue their transaction via email. The informant then contacted the author via email, and got a reply via email.

The informant confirmed the steps for payment by asking for the mobile phone number of the seller and sending sms messages.

Payment then took place through a bank ATM service.

And in the end, he received a physical book from a delivery service!

What these two examples suggest is that entryways into electronic commerce are likely to be varied and build on layers of history. The *warnet* Internet café draws inspiration from the *wartel* neighborhood phone ventures, which drew inspiration from the *warkop* coffee shops, all the way back to the original *warung* roadside food stalls. As these innovations appeared one after the other, they did not immediately push each other out, but instead formed complex ecosystems of commerce and sociality with both highly localized features in different areas of Indonesia, and features shared regionally and even nationally (making, for instance, associations of *warnet* and *wartel* entrepreneurs thinkable in the first place).

Similarly, while the shift to mobile devices—laptops, simple cellphones, smartphones, and tablet computers—is a significant one in the Indonesian context, these devices are likely to coexist with each other and with earlier forms of electronic commerce. Tracing out these ecosystems and their implications represents a fascinating agenda for future research.

These layers of varied mobile technologies are often built into business models. At present, it seems likely that the number-one way that informants learn of online shopping venues is via the Facebook “wall” postings of their friends. For transactions that informants make through Facebook, they generally first looked at promotions and photos uploaded onto the Facebook wall of online shops. These online stores usually include a telephone number and Blackberry Messenger contact information when promoting the goods they are selling, so that customers can get information about sales and further possible transactions.

For buyers, interested Facebook users can ask further questions via SMS and Blackberry Messenger. They will invite the store in question so they can enter the store’s group on Blackberry Messenger. In the shopping transactions via Blackberry Messenger, online stores generally make a group in this fashion and then upload photos of the things they are selling to the group, so that buyers and resellers in the group can see the goods offered, make comments and conduct question and answer sessions with the seller of the goods seen in the photographs. Thus, the line between “friend” and “fellow consumer” become intertwined.

Online stores also include their account number information, which usually consists of more than one account number, from different banks (Bank Mandiri, BCA, and BNI are the most widely used banks). One informant who was also a reseller explained that she opened several accounts in different banks to facilitate transactions with customers, and also to avoid the additional costs incurred when making transactions between different banks.

## 2) *The dominance of Blackberry*

While in the West the Blackberry is typically represented as a platform in decline, the unequivocal dominance of Blackberry devices in Indonesia as a “cult device”<sup>3</sup> has significant consequences and marks one of the clearest differences with the USA. Indeed, Blackberry’s share of the mobile phone market in Indonesia has grown from 9% in 2009 to 47% in 2011.<sup>4</sup>



Source: *The Wall Street Journal*, September 12, 2011<sup>5</sup>

The Makassar team noted that after the popularity of Facebook started to be supplanted by the use of Blackberry Messenger (BBM), all 7 informants switched to BBM as a means of doing online transactions, due to a sense that BBM was more efficient, as well as that when using Blackberry Messenger they could be more selective in choosing people or online stores that they considered safe for their shopping transactions. This supplanting of Facebook by Blackberry Messenger certainly runs against the dominant narrative in the West and reflects how “the growth of the service in Indonesia is the highest among the countries of the Asia-Pacific”.<sup>6</sup>

The selection of the type of Blackberry mobile phone to use was made with a variety of considerations, including data capacity, the ability to receive data, and fitting one’s lifestyle. These factors led our Blackberry users to replace (more than once) their Blackberry with a fancier model (with a higher price) to support the online activities that they do using their Blackberry. All of the Makassar informants said that although they have more than one gadget (Android, iPad, Mac, notebook, laptop, etc.), they are more likely to use Blackberry in online activities (Blackberry Messenger, Facebook, Twitter, browsing).

Indonesians make heavy use of shopping applications in the Blackberry store. One of the most common ways that informants learn about online shopping venues is via Blackberry Broadcast, which is a broadcast message you can send to multiple or all contacts; recipients cannot reply to broadcast messages.<sup>7</sup>

One respondent summed up this state of affairs by noting “The two technologies that I use are a laptop and Blackberry to make online transactions. I’ve never used anything other than that.” Like many Indonesians, this respondent has skipped not just the desktop computer, but the regular mobile phone. That BlackBerry Messenger has

become the “killer app” for mobile commerce in Indonesia certainly merits further investigation.

### 3) *Mobilizing locality*

It is well-known that “globalizing” technologies, from the telegraph and newspapers to smartphones and iPads, can have effects and multiple spatial scales. That is, they do not always just globalize: they can also localize, or foster “imagined communities” at the level of the modern nation-state.<sup>8</sup> Historically in Indonesia, telecommunications technologies were crucial for uniting the residents of this far-flung archipelago into a nation-state (and in many cases, dominating the weaker periphery from the power center of Java). In the last fifty years, Indonesians have become highly internally mobile, traveling great distances in search of work to support their families of origin, and telecommunications technologies have been important for staying in touch as well as transferring the remittances themselves.

The rapid penetration of mobile phones and especially smartphones is now reconfiguring these practices of spatial scale-making. For instance, we were surprised to learn that our university student informants in Surabaya used mobile phones to purchase snacks online rather than stopping by a *warung* near their homes. They learned about this online store through Facebook and Twitter, where the mobile phone number would be listed so buyers can place an order via SMS. The price of the snacks purchased ranged from 6,000–20,000 rupiah [≈\$0.63–\$2.10]. Interestingly, even though the snacks are cheap, the sellers do not add a cost for delivery, because buyer and seller are both in Surabaya. It would appear that the online snack sellers make their profits through very small price markups rather than a delivery fee.

Despite these forms of locality, it is clear that national products and national companies matter. For instance, the national shipping organizations Tiki and JNE (and particularly JNE) were cited by informants as the preferred way to receive goods ordered online, and goods are usually delivered in 2–7 days.

### 4) *Buying and selling*

At least two of the interviewees started using mobile devices for making purchases, but then also became resellers of commodities themselves. That both of these resellers were women does call for further research into the possibility that mobile commodity trading in Indonesia may be shaped by the centuries-old association of women with markets in much of the archipelago.

One Surabaya informant described the transition to selling as follows:

...I tried to do shopping online at FB [Facebook]. It started with seeing the pictures that were tagged on my friend’s wall, and then I would go to the listed FB address that sold goods online. I was interested in buying something, and finally I did some transactions, like purchasing some bedsheets and t-shirts. Some of these items were satisfactory, but some were disappointing. This gave me the idea that I should try selling things online. I wanted to sell things that were good, of high quality, and affordable. Currently I just use FB and a BBM

[Blackberry Messenger] group for online shopping as a buyer or seller of t-shirts. I primarily use the BBM group because then I'm buying from people I know, so that it's easier to make a complaint if there's a problem with the goods. My experience doing transactions with BBM started with friends who sell things using BBM. At one point I felt that I needed some stuff, and I asked around to my friends that sell things using BBM, found some stuff that fit what I wanted, and finally made the transaction.

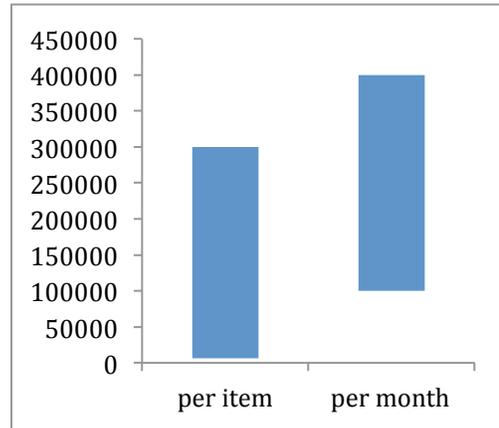
Three female informants from Makassar (two of whom are bank employees; the third works in a notary office) are sellers and resellers of goods transacted online via Blackberry Messenger. One key reason they said for becoming an online seller of goods was to fulfill the needs of their shopping hobbies. They can still feel they are shopping even though their purchases will be immediately resold to their regular customers. One informant who works as an online travel agent said that she is only willing to sell tickets to specific people she knows well; she can reduce her risk as a seller if she really knows the people booking tickets through her online travel service. This is important because she has to pay the airlines up front for the tickets her regular customers order.

These narratives reflect not only how Blackberry is seen as contributing to more trusted social networks than Facebook, but how mobile technologies are now acting as a kind of "virtual bazaar," the place of commerce itself. Indonesians are not just making "friends," but making new business partners and engaging in a kind of "commerce by proxy" that builds off networks of trust.

In terms of this trust, it seems that the use of mobile phones for shopping is outpacing their use for banking. For instance, while all 7 of the informants interviewed in Makassar for this first phase of the research did mobile shopping, only 4 of them used mobile banking. Those that did transact most commonly cited efficiency as the motivation for their choice, because they can conduct financial transactions anywhere and anytime. The remaining 3 informants continue to use regular ATMs for financial transactions, on the grounds that they still aren't comfortable using mobile banking, SMS banking, and internet banking services. But they also plan on using these services at some point, due to the convenience they offer in terms of time and place. One female university student in the Makassar sample said that she conducted financial transactions through mobile banking and SMS banking only on the range with a certain amount of money (100,000-500,000 rupiah [ $\approx$ \$11-53]); when it exceeds that amount, she feels more secure doing transactions via an ATM.

The clearest outlier in this regard was one of the Makassar respondents, an ethnic Chinese businesswoman who said that she did all financial transactions through mobile banking and SMS banking, including paying household and business bills (such as electric, water, and phone bills). For her, such transactions are not limited to a certain amount, and she always stored the financial transaction reports sent to her as proof of the transaction.

It appears that it is mostly lower-value items that are purchased online. Preliminary respondents report spending from 6,000–300,000 rupiah per item purchased online (approx. \$0.63–31.65). They also report spending 100,000–400,000 rupiah per month online (approx. \$10.55–42.20).



Many of these dynamics are reflected in the following informant narrative:

[This informant's] first experience [with online transactions] was when she started college around the beginning of 2009. The first time online was via FB using a laptop. The informant got a message about an advertisement for jackets, and out of curiosity she tried opening the site from FB. There were pictures of a jacket and the informant got interested in ordering it. The informant tried to contact the seller via sms, using the messaging function in FB. When sms-ing the seller, the informant did not ask anything, but directly followed the sms format of FB. There were no difficulties because the message format was already clear, such as the number for the type of jacket, where to put your address, how to choose the jacket size, etc. The next day the informant transferred money into an ATM. There was no fear because the price of the jacket was only 100,000 rupiah [≈\$10.50], so even if there was a failure with the transaction, it wasn't a big problem. The goods came about 3 days after the transfer, via TIKI.

On occasion, respondents spoke of the possibility of becoming addicted (*ketagihan*) to online shopping. One respondent who felt he had become addicted erased some of the online stores that were bookmarked on his Facebook and Blackberry Messenger profiles.

##### 5) *Mobile commodities*

An interesting area for future research involves exploring which kinds of commodities get associated with mobile shopping. Female respondents in the interviews conducted thus far reported purchasing bed linens, clothes, bags, shoes, stuff for facial and body treatments, and “accessories” (using the English term; such items like jewelry are seen as trendy). It appears that the female respondents are typically using highly personalized mobile devices to purchase personalized items like clothing. The two gay

students reported ceramic mugs, bags, jackets, books, cellphone minutes, and airline tickets. The differences in reported goods purchased clearly reflect not just gender and sexuality, but these informants' position as university students.

Key to the mobility of these online commodities is the ability to return items. Indonesia regularly rates as one of the most corrupt countries in the world, and Indonesians are justifiably suspicious of retailers and commodities they do not meet face-to-face. As one research team noted, "respondents were typically disappointed by items that were presented online in a manner that didn't reflect what they actually were like." One respondent from Surabaya said that:

Nowadays I don't use e-Bay for shopping because I tried shopping there twice, and twice was disappointed. The items purchased were a jersey and a scarf. One motivation for to do transactions on e-Bay was that I wanted to see if the goods are sold on e-Bay were of good quality or not. Apparently not, so that's why twice was enough.

An informant from Makassar also complained that the quality of goods they receive after shopping online often falls short of their expectations; the pictures they see when ordering does not match what they receive. While this often makes them raise complaints related to the online shop in question, in the end they accept it as the risk of doing online shopping.

Presently, there are clearly genres of mobile shopping in Indonesia. One pattern is to compare the same item between online and offline stores, to see which has the better price and so the informant can actually handle the item in question. Another pattern is to shop online for items that informants find difficult to obtain in physical stores. Generally, informants felt that online stores were more convenient and updated their wares more frequently. In terms of mobility, one reason given by informants for preferring online shopping is that it avoids having to run around town. Even though Surabaya and Makassar do not have jams on the scale of the capital of Jakarta, they do have significant traffic, so avoiding such traffic is understandably desirable. In addition, informants stated that mobile shopping helped avoid *pergi-pergi*. In the Indonesian language, reduplicating a verb of motion often implies a lack of purpose or direction. Thus, for instance, *lihat* = "to see," *lihat-lihat* = "to look around;" *jalan* = "walk," *jalan-jalan* = "to walk around." Thus, given that *pergi* means "drive," an advantage of mobile shopping is that it allows persons to avoid driving around without purpose, visiting stores that turn out not to carry the commodity — *pergi-pergi*.

One informant summed this up when stating that:

Shopping online is more practical because it can be done anytime, anywhere. At the same time malls are crowded and there are too many choices so you just get confused. You need more than just a few minutes to do mall shopping, but I'm usually already exhausted from the work day.

### Concluding thoughts

This interim report is, of course, by nature incomplete and designed to raise avenues for further inquiry. It is clear that there remain technological challenges in the Indonesian context. Complaints shared by informants who use mobile banking and SMS banking services include that the service is very dependent on the signal, and connections are not always good and in any case vary greatly depending on where they are. Delays in the reporting of transactions to and from their devices and their banks made them worried (for instance: was the transaction successful or not, was the money sent or not). Complaints expressed by the informants in regard to transactions via Blackberry Messenger included the risk of damaging the Blackberry by causing it to freeze, experience very low loading time, or even crash completely due to the intensity of the incoming messages.

However, many of the continuing hurdles we have encountered in this research to date involve social dynamics rather than technology in isolation. That Blackberry dominates other platforms in Indonesia challenges usual narratives of innovation and compels us to ask how Indonesians are working within a horizon of possibilities to forge creative responses to their interests in commerce and mobility. This certainly will hold lessons for the rest of the world and have implications for financial inclusion in the broadest sense.

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<sup>1</sup> <http://pandri-16.blogspot.com/2010/08/sejarah-dan-istilah-warnet-di-indonesia.html>.

<sup>2</sup> <http://.rahmamia.wordpress.com/2012/05/20/>.

<sup>3</sup> <http://news.bbc.co.uk/2/hi/programmes/direct/indonesia/9508138.stm>.

<sup>4</sup>

<http://online.wsj.com/article/SB10001424053111904103404576557703316562230.html>.

<sup>5</sup>

<http://online.wsj.com/article/SB10001424053111904103404576557703316562230.html>

<sup>6</sup> <http://etrenautre.com/positive-growth-blackberry-in-indonesia-13013y-130184.php3>.

<sup>7</sup> [http://docs.blackberry.com/en/smartphone\\_users/deliverables/7847/Send\\_a\\_broadcast\\_msg\\_GW\\_377612\\_11.jsp](http://docs.blackberry.com/en/smartphone_users/deliverables/7847/Send_a_broadcast_msg_GW_377612_11.jsp).

<sup>8</sup> See Benedict Anderson, *Imagined Communities: Reflections On the Origins and Spread of Nationalism* (London: Verson, 1983).