Digital Innovation Dialogue
Session 8: Farmers’ digital identity and data ownership

Monday, 2 March
14:30-16:00

Lebanon Room, D209 and online

Digital Innovation Unit | Information Technology Division (CIO)
general
little
low hanging
fruit

long term

foundational
SDG 16.9 - id4Africa - AU
(on behalf of Kafkas Caprazli)
UN Legal Identity Expert Group (UN LIEG):

- coordinated UN position and approach for implementation
- strengthened evidence for action
- enhanced high-level advocacy and engagement
- technical support and financing country implementation

African Union (AU)

the African passport and free movement of people

(AU Flagship Project of Agenda 2063)

https://au.int/en/agenda2063/flagship-projects
6th annual meeting
Marrakesh
June 2-4, 2020

premier event on id for development purposes

1500+ registered identity stakeholders (in 2019)

https://www.id4africaevents.com/2020
KIAMIS
(on behalf of Stuart Tippins)
KIAMIS
Kenya
Integrated
Agriculture
Management
Information
System
Farmer Digital Identify provides value added services:
- inputs management
- credit management
- mechanization services
KIAMIS – Farmer Digital Identity and Data Ownership

**Advantages:**
Fully owned by government for greater sustainability, policy control and accountability of managing citizens data:

- Farmers registration data collected by government designated officials
- Open to all levels of national and county officials – especially important after recent highly publicised scandals surrounding AG inputs allocation and distribution

**Disadvantages:**
- Not registering on KIAMIS prevents farmer receiving government provided inputs
- Kenya does not currently have specific data protection legislation, which would regulate the collection, retrieval, processing, storing, use and disclosure of personal data
- Kenya's High Court halts controversial biometric citizen ID scheme (Hudma) until new data protection laws are enacted (https://www.bbc.com/news/amp/world-africa-51324954)
GDPR
describes GDPR as one of the “biggest shakeups” for the industry

we are GDPR compliant by the effective date of 25 May 2018

new capabilities to enable robust GDPR compliance
GDPR & blockchain
Blockchain GDPR Problem Statement

GDPR prescribes the right to be forgotten (10 years) and the right of data owners to delete their data. Blockchain transactions are immutable and do therefore conflict with GDPR when they contain personal data because an immutable record in blockchain cannot be deleted.

A possible solution for this problem is not to use blockchain but a digital signature like IRMA: [https://irma.app/](https://irma.app/)

(Jacobs, 2020)
potential solutions

store attribute references in blockchain, rather than the attributes themselves

private blockchain (instantiated/deleted yearly) for private attributes, public blockchain for business attributes (hybrid)

anonymize personal attributes
digital signature

your solution?

potential solutions

farmer signs agreement to give up fundamental rights

no go

principles of GDPR do not apply in non-EU countries

farmers sign agreement to give up fundamental rights

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Value of farmer’s data
### data regulation confusion matrix

<table>
<thead>
<tr>
<th>company</th>
<th>users</th>
<th>$ net worth/assets</th>
<th>$ per user</th>
</tr>
</thead>
<tbody>
<tr>
<td>ByteDance (tiktok, etc.)</td>
<td>800 million</td>
<td>78 billion</td>
<td>97</td>
</tr>
<tr>
<td>Facebook</td>
<td>2.5 billion</td>
<td>138 billion</td>
<td>55</td>
</tr>
<tr>
<td>Google</td>
<td>2 billion (Youtube)</td>
<td>131 billion</td>
<td>66</td>
</tr>
<tr>
<td>John Deere</td>
<td>&gt;0</td>
<td>66 billion</td>
<td>&gt;0</td>
</tr>
<tr>
<td>AGCO (Massey Ferguson, Fendt, etc.)</td>
<td>&gt;0</td>
<td>7,1 billion</td>
<td>&gt;0</td>
</tr>
<tr>
<td>etc.</td>
<td></td>
<td></td>
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</tbody>
</table>

All values are approximate.

A social network is worth nothing without online users - this applies increasingly also to digital agricultural service providers.

Can a farmer port its data from one digital agriculture service provider to another?
SDG 16.9 - by 2030, provide legal identity for all, including birth registration

SDG 16 Promote just, peaceful and inclusive societies

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hypothesis

GDPR (lite?) & farm ID for agriculture

UN General Assembly/LIEG tasks UN Economic Commissions and/or FAO to implement GDPR & farm ID in agriculture

International Digital Council for Food and Agriculture takes accordingly precise role and responsibilities

from General to Agriculture Data Protection Regulation (ADPR)

remarks

if not UN, who?

if not now, when?
standing on the shoulder of giants

thank you

Bart Jacobs
Stuart Tippins
Kafkas Caprazli
Puvian Selvanathan
Imma Subirats-Coll
Richmond Manasseh
Thembani Malapela
Nikola Trendov
Meng Zeng
Wei Liang
Bo Jia