Accessibility – 'Talking' Identity Cards

By Achim Hildebrandt, Former Head of Passports and ID Cards, Federal Ministry of the Interior, Germany

Regulation (EU) 2019/1157 of the European Parliament and of the Council of 20 June 2019 on strengthening the security of identity cards of Union citizens and of residence documents issued to Union citizens and their family members exercising their right to free movement is now in force.

The regulation contains security and production standards that are legally binding for the EU member states. This means that not only EU visas, residence permits, passports, driving licences, but also identity cards are now to be subjected to EU regulations and secured according to uniform standards. Identity cards remain national.

That being said, however, the term European identity card is appropriate. The identity cards will be given an EU logo, based on a uniform yet flexible high-security concept that allows national adaptation. These cards will be valid as ID documents throughout Europe. 'European identity cards' legitimise EU citizens as such and serve as travel documents equivalent to passports across the block. Just like passports, they also contain two biometric features, ie. face and finger. The 'EU identity cards' protect their holders and serve to secure the European internal market.

So much for the principle.

Accessibility

In the recitals, the regulation contains a reference to accessibility and userfriendliness. It reads: 'This Regulation respects the obligations set out in the Charter and the United Nations Convention on the Rights of Persons with Disabilities. Therefore, Member States are encouraged to work with the Commission to integrate additional features that render identity cards more accessible and user-friendly to people with disabilities, such as visually impaired persons. Member States are to explore the use of solutions, such as mobile registration devices, for the issuance of identity cards to persons incapable of visiting the authorities responsible for issuing identity cards."

This passage is not part of formal legal section. However, if we read it according to the letter and the spirit of the regulation, further conclusions can be drawn.

On the one hand, the passage on accessibility and user-friendliness has a mandate character. In this respect, it has a challenging character. Secondly, identity cards can be understood to include other ID documents, especially passports and driving licences, in as far as these documents serve as proof of ID. The task formulated as a recital can therefore be widely interpreted. There are various possible solutions for implementation. One possibility is to integrate the required information into the chips of identity cards. This could be carried out during issuance, especially when the data is loaded onto the chip, in which case retrofitting should also be possible.

It should also be possible to read out the information using the document holder's mobile phone. This can read out the MRZ and hence the chip or the personal data of the passport holders, who are able to read the MRZ and thus read the chip, or the personal data that the holder has consented to.

Another possible solution is available on the market. In this case, a link to an mp3 file is stored in a rather small QR code containing an audio clip. The audio clip consists of the spoken details of the information printed on the identity card. In this case, the information would be, for example, 'this identity card is issued in the name of... It is valid until...'.

In other words, a talking identity card. The card is heard rather than read. A mobile phone scans the QR code, loads the audio chip from the server into the mobile phone and plays back the content via the voice output of the mobile phone.

One option with a similar effect would be to apply Braille code to the identity card, which a visually impaired person could 'read' with his or her trained fingers; this would also decode the link to the audio clip. The link would have to be typed in or spoken into the mobile phone in order to then listen to the audio clip. The advantage of this approach is that no space would be needed to apply Braille code to the identity card. The very small Braille nubs have virtually no falsification effect on the printed characters. Both solutions require access to the internet.

Colour speech code

Internet-independent solutions are also conceivable. For example, the information could be integrated into a special coloured and larger QR CODE. The data is then read out again with the personal mobile phone. In other words, the QR code is read with the mobile phone and the text can then be listened to.

This kind of solution has been tried and tested and is available on the market. As a result, text that is difficult or impossible to read because it is very small now becomes audible. The talking passport or identity card would work much like the applications used today in the package insert of medicines, or like the applications used at museums where explanations can be listened to on the visitor's mobile phone. No internet connection is required for this.

In technical terms, this is a two-dimensional, coloured data code that can be scanned and decoded directly in combination with an app (available free of charge) and a smartphone (IOS or Android). Unlike other QR codes, which are basically a link to a website, this solution contains all the information in the code itself and therefore does not require an internet connection.



Colour speech code.

Another internet-independent solution would be to store an audio clip (eg. an mp3 file) in a free memory area of the chip on the identity card. Using an app specially developed for this purpose, an NFCenabled mobile phone could read the audio clip and make it audible. For access to the chip, the operating systems for the chip in the identity card would have to be extended by adding the clip-read function in addition to the security protocols previously used.

Conclusion

After reading the spirit and letter of the recitals, it is apparent that the new EU regulation on identity cards contains a very clear political mandate to make ID documents accessible. We are talking about the technical methods that can be implemented. If we assume that the aforementioned regulation represents the will of the EU member states, the European Parliament and the Commission, then the time has come for action. It goes without saying that it will not be as easy as outlined above, but we have to make a start. The idea that good things take time should not apply here.