

**MINDb4ACT**

**Interacting with violent  
extremisms: A semantic  
tool**

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## Interacting with violent extremisms: A semantic tool

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### Abstract

This article aims to describe the value of a jihadist semantic tool ('glossary'), developed as part of the European Union's Horizon 2020 MINDb4ACT Project, to improve the understanding of and thus practitioners' relationships with jihadists. In this case, this glossary incorporated elements of jihadist ideology, salafism<sup>1</sup> (these two doctrines sometimes have a common vocabulary), terrorist know-how, security (in particular associated with detention) and slang forms of language. The target population is French-speaking North African. It matches essentially to Belgium, France and, to a certain extent, Switzerland.

We recommend, if it does not exist yet, the development of a glossary for other languages used by violent extremist fringes, for instance Turkish-German or Pakistan-British ones. However, it was necessary to resolve formally certain ambiguities related to ethical misuse, for example that it be used to profile or predict dangerousness. This glossary is first helpful to support any P/CVE programmes involving the same target population, but should never be used, as it is, for other purposes.

### Keywords

Jihadism, glossary, glocal, French-Maghrebi, interpersonal relations, languages

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<sup>1</sup> In a nutshell, we will define salafism as a fundamentalist doctrine that tends to be conservative, by imitation of the Prophet Muhammad, while jihadism is rather a neologism that appears in the 20<sup>th</sup> century and refers to jihad as a collective and individual offensive duty.

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## 1. Introduction

Previous preventing violent extremism (PVE) and countering violent extremism (CVE) work in the field has shown that language needs to raise the bar in relationships between professionals and beneficiaries. Some penitentiary staff use the Islamic term ‘Taqiyya’<sup>2</sup> (‘dissimulation’) too broadly to analyse some personal behaviours, which in retrospect leads to misperception — an inmate diagnosed with dysphasia<sup>3</sup> does not necessarily ‘dissimulate’ by speaking little.

While ideally a ‘Rosetta stone’ is needed, a glossary can help to reduce aggressive interactions,<sup>4</sup> which constitute a very sensitive issue in the P/CVE field. For general and non-specialised staff, in particular prison staff, there is sometimes, depending on the profile of the practitioner, a linguistic insufficiency and a lack of knowledge of the language used by jihadists and radicals. One explanation is that first-line practitioners are sometimes recruited through a process that often does not take into account language or intercultural skills. It should be pointed out here that jihadism, including in the French-speaking world, is a culture.<sup>5</sup>

We quickly considered that a light and handy paper-based tool, such as a glossary, in short, ‘low-tech’, was certainly more useful and accessible for work in detention, where electronic tools are prohibited or scrambled, or in other constrained environments.

In the end, we developed a tool that can be activated by end-users and which retains the possibility of evolution. It can also be a way to improve understanding in the context of life in detention and P/CVE psycho-social interventions intrinsically, through a shared language. Its goal is both to facilitate interpersonal relations between jihadists and practitioners for practical/instrumental reasons, and to better understand the way jihadists ‘see’ or categorise the world, in particular in detention.

## 2. Methodology and sources

Our team had operational P/CVE capacities, both in and out of detention. Their involvement as practitioners in the classified AMAL Programme for the prevention of jihadist recidivism was both a decisive training and contribution. This programme, led by the author of this article, took place in 2015-2016, on behalf of the French Ministry of Justice, in two maximum-security penitentiaries and with 12 returnees from Syria. One of our programme conclusions emphasised the importance of social/cultural proximity

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<sup>2</sup> On taqiyya and its origins, see: Clarke, L. (2005). ‘The Rise and Decline of taqiyya in Twelver Shi’ism’, in Lawson, T. (ed.), *Reason and inspiration in Islam: Theology, philosophy and mysticism in Muslim thought* (London, I.B. Tauris), 46-63.

<sup>3</sup> Gorno-Tempini, M.L., Hillis, A.E., Weintraub, S., et al. (2011). Classification of primary progressive aphasia and its variants. *Neurology*. 76(11): 1006-1014.

<sup>4</sup> Anderson, C.A. and Huesmann, L.R. (2003). Human aggression: a social-cognitive view. In: *The SAGE Handbook of Social Psychology* (London: Sage Publications), 53: 27-51: 259-288.

<sup>5</sup> Hegghammer, T., ed. (2017). *Jihadi Culture: The Art and Social Practices of Militant Islamists* (Cambridge: Cambridge University Press).

between team members and beneficiaries, at least through a shared language, as defined by anthropological linguistics.<sup>6</sup>

A glossary is a collection of terms associated with their definitions and focused on a field for which it details specific technical terms, such as computer science or medicine; here, French-speaking jihadism is considered.

Our team was familiar with Maghreb dialectal Arabic, classic Arabic and/or hybrid forms of dialectal Arabic in use in French-speaking European countries. Some lived in a neighbourhood with a high diaspora density. They also had Muslim (2) and jihadist (3) theological knowledge. Two of our authors have performed or were performing spiritual functions in detention, including in one case under the official status of Muslim chaplain. We started from our culture (bottom-up approach), in which the French-speaking jihadists also find their roots for what they have from non-Arab sources, rather than from non-existent or overly broad English-speaking references (e.g. in the ‘global’ jihadist vocabulary, i.e. theological in classical Arabic), or from alternative Arabic sources, for example here from the Gulf or Pakistan, with almost no linguistic influence in the French-speaking world. As has sometimes been demonstrated, operational practices and jihadist language are, at least for the French-speaking world, a ‘glocal’ phenomenon, both rooted in the globalisation of jihadism (land of jihad, transnational mobilisation, concepts, movements) and at the same time very local, for example through the social, cultural or linguistic micro-reality in which they live and practice.<sup>7</sup>

### 2.1. Research protocol

From there, we sought, gathered and used complementary items from the following semantic fields:

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<sup>6</sup> Agheyisi, R. and Fishman, J.A. (1970). Language Attitude Studies: A Brief Survey of Methodological Approaches. *Anthropological Linguistics*. 12(5): 137-157; Foley, W.A. (2012). Anthropological Linguistics. *The Encyclopedia of Applied Linguistics* (Blackwell Publishing Ltd.).

<sup>7</sup> Marret, J.L. (2007). The GSPC/Al-Qaeda in Islamic Maghreb: A Mix of Low and High-Tech Capabilities, *Working Paper*, 25 April 2007, Center for Transatlantic Relations, Johns Hopkins University; Marret, J.L. (2008). Al-Qaeda in Islamic Maghreb: A “Glocal” Organization. *Studies in Conflict & Terrorism*. 31(6): 541-552.

- (a) The vocabulary of salafist-jihadist ideology (and not Muslim, which is broader and less specific),
- (b) Operational and terrorism vocabulary, with a focus on aggression in detention;
- (c) Detention vocabulary;
- (d) The slang used by French-speaking European jihadists (again, from France, Belgium and Switzerland), mostly of North African diaspora origin.

The target users also determined at an early stage the form that our tool should take, including its ‘semantic granularity’. The end users were supervisors (all ranks, all roles), non-Arabic speakers, probation officers, psychological-medical personnel, and eventually intelligence officers and analysts. Logically, we used a French transliteration system to allow easy pronunciation for any French-speaking person.

## 2.2. Granularity of the tool and characteristics of the French-speaking jihadist language

This glossary does not reflect the knowledge of one particular prisoner — whether in Arabic, theological or operational matters. It is rather intended to cover all the profiles’ diversity, roughly from the fluent Arabic-speaking facilitator who teaches radical Koranic hermeneutics, to the poorly educated petty criminal and radicalised young offenders.

This glossary, in its own way, reveals the extreme diversity of Arabic uses. Quite often, among people from the Maghreb and young people from this diaspora, Arabic is rather intuitive before being rigorous. It is also primarily oral when its written form is sometimes less mastered.

Even limited to a few words, ‘speaking’ Arabic helps to define an identity<sup>8</sup> and makes it possible to justify oneself:

- (a) on the basis of respect for ‘moral duties’, between licit and illicit, pure and impure; and
- (b) with others (critical in detention).

Even speaking Arabic poorly makes it possible, among radical fringes, to promote oneself. Words or formulas may seem well known and used, while they are misunderstood and imprecise. Among some young people of immigrant origin, Arabic is a language of authenticity, an identity marker, linked to family and ancestors. However, it is sometimes reduced to the use of a few automatic formulas, such as ‘In shâ-a L-lâh’ which literally means ‘God willing’, and which in an impoverished context can stand for ‘perhaps’, or ‘we shall see’. The use of the jihadist vocabulary clearly has a similar function of promoting the speaker, notably in proselytising situations.

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<sup>8</sup> See for instance: Billiez, J. (1985) La langue comme marqueur d’identité. *Revue européenne des migrations internationales*. 1(2): 95-105.

Such an evolution, which is akin to hybridisation, is also found in pronunciation. Many young people pronounce Arabic incorrectly.<sup>9</sup> In addition to the distortion of expressions, long vowels — so important in Arabic — tend to disappear, or to appear where they do not exist.

### 2.3. Living Lab feedback

Researchers, social worker practitioners and prison staff comprised the Living Lab that was set up for this project. The detention professionals quickly expressed their interest in jail and judiciary vocabulary (judge, warden, prison, police), as well as derogatory terms that they can hear without understanding them.

Finally, especially among researchers, a general agreement appeared on the need to develop the current glossary for other groups, namely German-Turkish and Pakistani-British, and for other forms of violent extremism (ethno-separatist, violent far-leftist and far-rightist small groups), in proportion to the new European diversities.<sup>10</sup>

### 2.4. Selected Bibliography

(in alphabetical order)

As our tool uses a precise linguistic corpus, English-speaking sources seemed useless to us insofar as: most of them simply translate into English terms from non-dialectal classical Arabic, or even more limiting, terms that are purely theological, and that are easily accessible for Arabic speakers. Moreover, it is disputed that Anglophone sources dealing with French-speaking jihadist vocabulary are non-existent, as are Anglophone references dealing with North African dialects or Franco-European linguistic hybrids. For the French-speaking world, in open source, there does not exist to our knowledge a similar tool. We therefore had to combine complementary sources and our field experience, as well as our usual linguistic knowledge.

Belhaiba Aicha:

2014: Le langage des jeunes issus de l'immigration maghrébine à Bordeaux: Pratiques, fonctions et représentations. Linguistique. Université Michel de Montaigne - Bordeaux III.

Benzakour Fouzia:

2008: Chapitre 2. Le français au Maroc: de l'usage maghrébin à la langue du terroir, dans: Claudine Bavoux éd., *Le français des dictionnaires. L'autre versant de la lexicographie française*. Louvain-la-Neuve, De Boeck Supérieur, Champs linguistiques, 191-204.

<sup>9</sup> Soliman, T.H.A., Elmasry, M.A., Hedar, A. and Doss, M.M. (2014). Sentiment Analysis of Arabic Slang Comments on Facebook. *International Journal of Computers and Technology (IJCT)*. 12(5): 3470-3478.

<sup>10</sup> See for instance: Gogolin, I. (2002). *Linguistic Diversity and New Minorities in Europe* (Strasbourg: Universität Hamburg).

Chebel Malek:

1984: *Le corps en Islam*, Éd. PUF, coll. Quadrige 2<sup>e</sup> éd. 1999, 3<sup>e</sup> éd. 2004.

1993: *L'imaginaire arabo-musulman*, Éd. PUF, 2<sup>e</sup> éd. coll. Quadrige 2002.

1995: *Dictionnaire des symboles musulmans*, Éd. Albin Michel, 2<sup>e</sup> éd. 2001.

Colin JP, Mevel JP, Leclère C:

2019: *Grand dictionnaire de l'argot* (Français), Éd. Larousse.

Collectif Permis de vivre la ville:

2007: *Lexik des Cités*, Éd. Fleuve.

Mongaillard Vincent:

2013: *Petit Livre de la tchatche* (Français), Éd. First.

Ribeiro Stéphane:

2014: *Dictionnaire Ados Français*, Éd. First.

Tengour Abdelkrim:

2013: *Tout l'argot des banlieues*. Éd. Opportun.

Vincent Aurore:

2017: *Les mots du bitume*, Éd. Le Robert.

Internet websites: <http://www.dictionnairedelazone.fr/>, <https://jihadology.net/>;  
<https://www.maison-islam.com/articles/?p=424> (Mid-September 2019).

## 2.5. Testing phase

The testing phase solicited a small group of researchers and practitioners (multi-level prison staff, prison trade union members, social workers) and led to these two fundamental aspects:

- (a) Some of the lab members expressed the need to have a profiling and evaluation capacity. This demand contradicted some domestic laws and H2020 ethical requirements.<sup>11</sup> We decided to leave such aspects aside and tried to justify this with the Living Lab community and the programme's ethical board. As a consequence, warnings have been added in the foreword of our glossary

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<sup>11</sup> [https://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/hi/ethics/h2020\\_hi\\_ethics-self-assess\\_en.pdf](https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/ethics/h2020_hi_ethics-self-assess_en.pdf)



highlighting the ethical and practical interests and impossibilities of our tool. This approach was validated by the MINDb4ACT Ethics Committee in October 2019.

b) The need to characterise by colour the words relating exclusively to jihadist semantics. It seemed impossible to go further, for example, to characterise words belonging to the salafist movement. Mainstream Muslims, salafists and jihadists, in all their diversity, often use identical concepts and keywords, although the meaning or interpretation may change.

## 2.6. Ethical issues and adopted solutions

In the end, our toolkit cannot be used in a profiling scope: in scientific terms, profiling — which we define here in relation to French law, as the mapping of an individual — is based on two types of approach:

a) Actuarial tools

b) Algorithmic-based prediction

Our tool does not use an algorithmic approach that would allow, for instance, the modelling of a priori ‘criminogenic’ personalities. Algorithmic input is sometimes used for recidivism and dangerousness assessment, especially when there are complex non-linear relationships between characteristic variables and the optimum sought. This also allows a process automation (LogistBoost<sup>12</sup> or MultiBoosting<sup>13</sup>). However, we know that this type of tool is not free of many biases.<sup>14</sup> Specifically, the lack of representativeness of the data is sometimes or often a potential bias that can hinder the smooth running of decisions made by algorithms.

Actuarial tools that do exist, particularly in criminal matters or to assess violent extremism, dangerousness or recidivism, are constituted according to forms that go well beyond a glossary.

If by realism, the objectification of recidivism risk or dangerousness requires a reduced focus on a limited number of identified factors (behavioural, motivational, age, gender, social) in order to be usable, it is also based on a statistical correlation of these same factors and a level of risk of recidivism or a scale of dangerousness. "In this perspective, different scales for predicting recidivism risks have been gradually developed, incorporating factors of varying numbers and types. Beyond the simple identification of the main risk factors for recidivism, work on offender assessment methods has focused

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<sup>12</sup> <https://logitboost.readthedocs.io/>

<sup>13</sup> <http://www.multiboost.org/>

<sup>14</sup> <https://www.theverge.com/2014/2/19/5419854/the-minority-report-this-computer-predicts-crime-but-is-it-racist> ; <https://usbeketrica.com/article/un-algorithme-peut-il-predire-le-risque-de-recidive-des-detenus>

on integrating them into instruments presented as scientific and reliable."<sup>15</sup> The best known is VERA-2R.<sup>16</sup>

By definition, our glossary does not have any of the capabilities necessary to objectify risk:

- It does not identify any risk factors;
- It does not allow for statistical correlations between these factors and the ‘potential for recidivism’; and
- It does not prioritise or correlate any variables or data.

### 3. Glossary

#### 3.1. General description

Our tool consists of 234 items (see annex for a glossary sample) with brief and, we hope, rather simple definitions. The Wikipedia format seemed ideal and we have been inspired, in a number of cases, not only by its form, but also by its definitions, even if it means supplementing them or putting them into context.

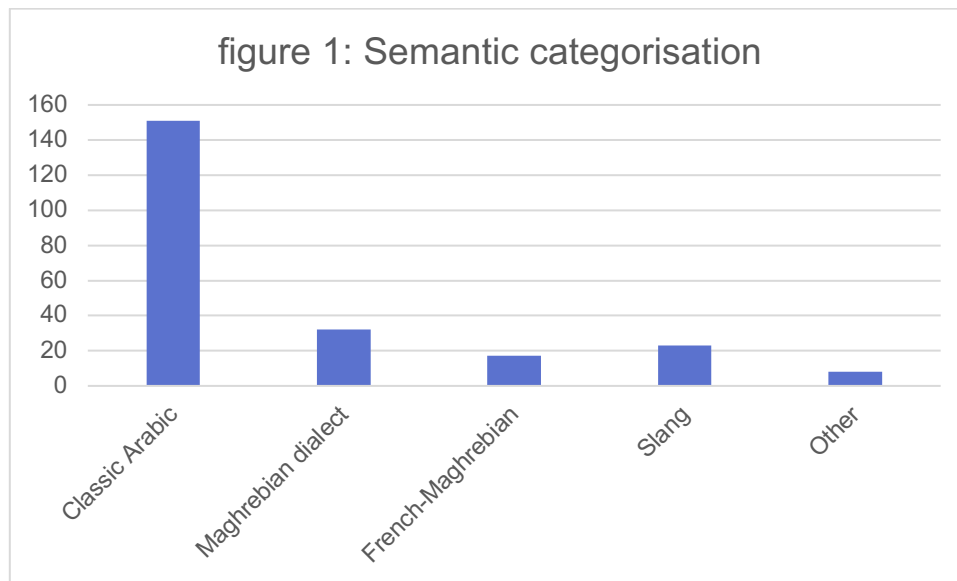
#### 3.2. Quantitative description

Just over half of these terms are in Classical Arabic, which no doubt underscores the non-Maghrebin nature of both the Qur'an and current jihadist corpora and languages, including post-ISIS. Moreover, it would be interesting to make a comparison with Algerian jihadist texts produced during the civil war that struck Algeria in the 1990s. The distribution between Maghrebi dialects (mainly Algerian and Algerian sub-dialects), francicised Maghrebi words and slang is more homogeneous. It should be noted that slang often comes either from words of alternative cultural origin (West African Malinke and Wolof languages (toubab = babtou = white people, or gypsy in particular), or from distortion by syllable inversion (dealer = Leurdi).

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<sup>15</sup> <https://journals.openedition.org/criminocorpus/3186#tocto2n2>

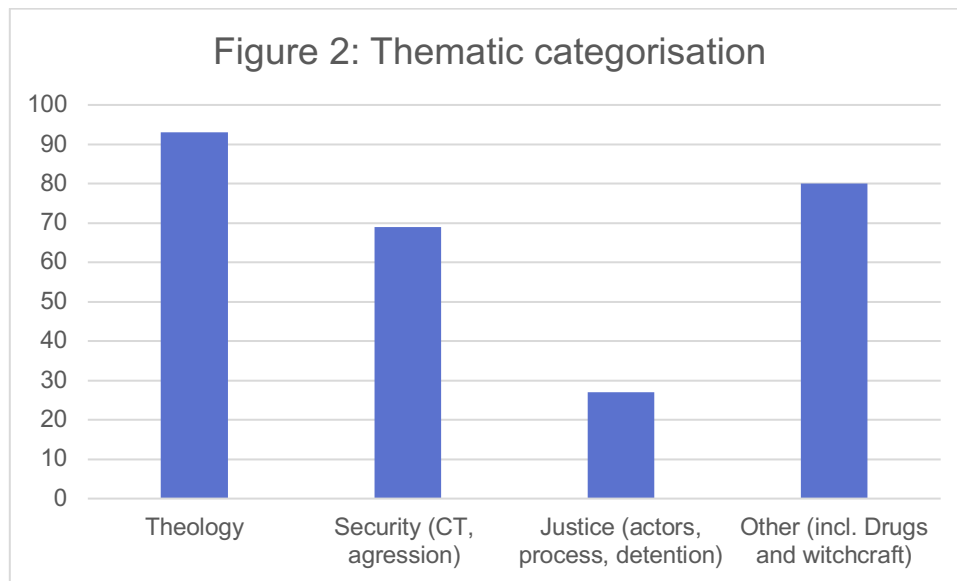
<sup>16</sup> <https://www.vera-2r.nl/vera-2r-instrument/index.aspx>



**Figure 1: Semantic categorisation**

The analysis of the items according to their theme indicates an omnipresence of religious terms (Koranic, hadithic), prescriptions and moral standards. The importance of items relating to security, and the vocabulary of aggression or terrorism processes, reflects many of the demands of practitioners in the field. We will qualify this aspect as a ‘precautionary bias’.

Much the same applies to the vocabulary about justice and the actors involved in the judicial and police processes. For those dealing with justice, Francophone jihadists are both constrained by a judicial time, evident in their language, but also interact with security and justice personnel on a daily basis. Finally, the weight of the vocabulary associated with narcotics (despite the religious prohibitions in this area) and the references to bewitchment, possession and witchcraft should be emphasised. In many respects, and with caution, these two semantic domains can be associated with the Arab-Muslim imagination specific to the Maghreb (Figure 2, below).



#### 4. Conclusion: low-tech and quick-impact

In the end, this glossary seems to fill an operational gap. It provides quick and easily usable knowledge elements (low-tech innovation). Moreover, it is necessarily evolving according to the feedback from its users, but also according to the possible emergence of new jihadist networks, if necessary, based on new themes of mobilisation and a specific vocabulary (post-ISIS). It should be stressed in particular that if a jihadist land crystallises one day in a non-Arab-speaking area, the question of the collection of new, semantically unusual, words, will arise: the French-speaking jihadist language would then be influenced by it.

Beyond that, such a tool is perfectly conceivable for other forms of violent extremism as soon as the need is felt in the French-speaking world or elsewhere, in a P/CVE approach: violent right wing extremism (with, for example, elements of semantic analysis on the anti-democratic, anti-parliamentary, or xenophobic corpus), violent left wing extremism (with, for example, a focus on anti-capitalist or anti-Zionist language), etc. The same applies for ethno-separatist forms of violent extremism (Basque, Kurdish, Corsican), etc.

Finally, the question of adding a sound component (such as MP3 files) to facilitate pronunciation was not addressed, but should be taken into account if a need is expressed by in-field end users.

#### 5. Acknowledgements

We would like to point out the contribution of the various end users we consulted, in particular the UNSA-Justice Union (penitentiary), the UNSA-Pôle-emploi Union, the DAP (directorate of the penitentiary administration) and the ‘Katiba des Narvalos’, a

network of French-speaking concerned citizens against jihadist propaganda for prevention purposes which operates through social media.

## References

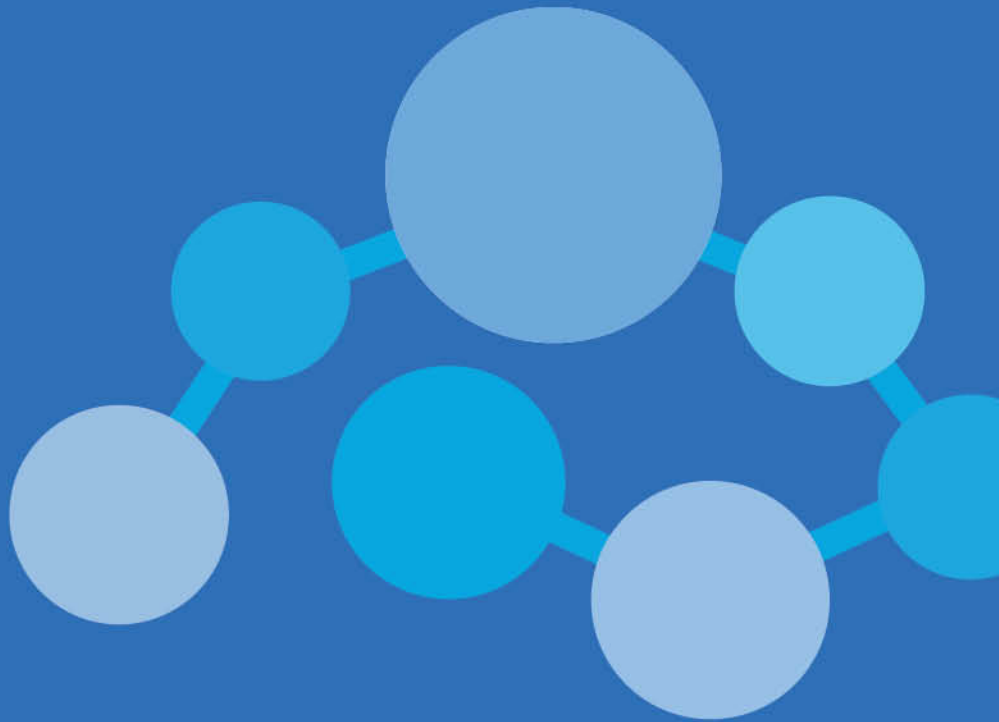
- Agheyisi, R. and Fishman, J.A. (1970). Language Attitude Studies: A Brief Survey of Methodological Approaches. *Anthropological Linguistics*. 12(5): 137-157.
- Anderson, C.A. and Huesmann, L.R. (2003). Human aggression: a social-cognitive view. In: *The SAGE Handbook of Social Psychology* (London: Sage Publications), 53: 27-51: 259-288.
- Billiez, J. (1985) La langue comme marqueur d'identité. *Revue européenne des migrations internationales*. 1(2): 95-105.
- Clarke, L. (2005). 'The Rise and Decline of taqiyya in Twelver Shi'ism', in Lawson, T. (ed.), *Reason and inspiration in Islam: Theology, philosophy and mysticism in Muslim thought* (London, I.B. Tauris), 46-63.
- Foley, W.A. (2012). Anthropological Linguistics. *The Encyclopedia of Applied Linguistics* (Blackwell Publishing Ltd).
- Gogolin, I. (2002). *Linguistic Diversity and New Minorities in Europe* (Strasbourg: Universität Hamburg).
- Gorno-Tempini, M.L., Hillis, A.E., Weintraub, S., et al. (2011). Classification of primary progressive aphasia and its variants. *Neurology*. 76(11): 1006-1014.
- Hegghammer, T., ed. (2017). *Jihadi Culture: The Art and Social Practices of Militant Islamists* (Cambridge: Cambridge University Press).
- Marret, J.L. (2007). The GSPC/Al-Qaeda in Islamic Maghreb: A Mix of Low and High-Tech Capabilities, *Working Paper*, 25 April 2007, Center for Transatlantic Relations, Johns Hopkins University.
- Marret, J.L. (2008). Al-Qaeda in Islamic Maghreb: A "Glocal" Organization. *Studies in Conflict & Terrorism*. 31(6): 541-552.
- Prins, S.J., Skeem, J.L., Mauro, C., and Link, B.G. (2015). Criminogenic Factors, Psychotic Symptoms, and Incident Arrests Among People With Serious Mental Illnesses Under Intensive Outpatient Treatment. *Law Hum Behav*. 39(2): 177-188.
- Soliman, T.H.A., Elmasry, M.A., Hedar, A. and Doss, M.M. (2014). Sentiment Analysis of Arabic Slang Comments on Facebook. *International Journal of Computers and Technology (IJCT)*. 12(5): 3470-3478.

## Annex: glossary sample

<b>Bolos(s)</b> : client de dealeur, personne faible
<b>Bolossier</b> : agresser une personne faible
<b>Bounty</b> : péjoratif : Noir(e) se prenant ou parlant comme un Blanc
<b>Bylka</b> : kabyle
<b>Califat</b> : vient de l'arabe, al-khilâfa, littéralement la lieutenance sur terre que se doivent de réaliser les musulmans sur terre, il s'agit d'être les représentants de Dieu et de Sa loi sur terre.
<b>Carba</b> ↔ Karab : prostitué(e) qaḥba. Registre d'argot dialectal qui veut dire pute, salope, traînée.
<b>Carlouche</b> ↔ Karlouche : Noir (e) kaḥlush, se prononce kaḥlouche qui, est également une expression triviale dialectale dérivée du mot arabe aḳhal qui fait référence à la couleur noire mais pas à l'homme noir. Son utilisation fait davantage référence à négro qu'à noir.
<b>Chahada/shahada</b> shahâda, se prononce shèhèda. Il s'agit de la première partie de la double profession de foi dont est censé s'acquitter de croyant monothéiste : « j'atteste qu'il n'y a pas de dieu en dehors d'Allah ». La seconde partie consiste à attester que Mahomet est le messager d'Allah. Shahâda est également un terme qui peut simplement signifier le témoignage, celui d'un témoin dans un cadre judiciaire par exemple.
<b>Chahid/shahid</b> shahîd, se prononce shèhîd : un martyr
<b>Chbeb</b> : un homo passif Shbâb, se prononce shbèb, veut aussi dire dans l'arabe dialectal du maghreb « beau ».
<b>Cheh !</b> Shaḥh, se prononce shèḥh. C'est un terme dialectal que l'on peut qualifier d'onomatopé : Se dit à une personne lorsqu'on se réjouit de son malheur. Bien fait !
<b>Chibani</b> : de l'arabe dialectal qui veut dire vieux, ancien.







The **MINDb4ACT Project** (*‘Developing skills and opportunities to develop ethical, innovative and effective actions against violent extremism’*) is a Horizon 2020 research project led by the Spanish think tank Real Instituto Elcano (ELCANO) and funded by the European Commission. It brings together seventeen partners from nine European countries (Austria, Belgium, Denmark, France, Germany, Italy, Poland, Spain, United Kingdom) to contribute to the prevention of violent extremism in Europe. By adopting an innovative participatory method known as Living Lab, the project will test existing prevention and counter practices in the field of violent extremism to detect possible gaps and advance with effective actions. The project expands over 2017-2021 and has a total budget of €4 million. The four domains around which the project will revolve are prisons, schools, local initiatives and the Internet and media.



Horizon 2020  
European Union Funding  
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[#mindb4act](https://twitter.com/mindb4act)