Cyberterrorism. Oh Really?

Dr. Morton Swimmer, FTR, Trend Micro, Inc.

swimmer@acm.org

Terrorism and cyberterrorism

- What is Terrorism?

- What motivates terrorists?

- How do they operate?

UN ODCCP definition - Academic consensus

"Terrorism is an anxiety-inspiring method of repeated violent action, employed by (semi-) clandestine individual, group or state actors, for idiosyncratic, criminal or political reasons, whereby - in contrast to assassination - the direct targets of violence are not the main targets. The immediate human victims of violence are generally chosen randomly (targets of opportunity) or selectively (representative or symbolic targets) from a target population, and serve as message generators. Threat- and violence-based communication processes between terrorist (organization), (imperiled) victims, and main targets are used to manipulate the main target (audience(s)), turning it into a target of terror, a target of demands, or a target of attention, depending on whether intimidation, coercion, or propaganda is primarily sought" - Schmid, 1988

UN ODCCP definition - Academic consensus

"Terrorism is an anxiety-inspiring method of repeated violent action, employed by (semi-) clandestine individual, group or state actors, for idiosyncratic, criminal or political reasons, whereby - in contrast to assassination - the direct targets of violence are not the main targets. The immediate human victims of violence are generally chosen randomly (targets of opportunity) or selectively (representative or symbolic targets) from a target population, and serve as message generators. Threat- and violence-based communication processes between terrorist (organization), (imperiled) victims, and main targets are used to manipulate the main target (audience(s)), turning it into a target of terror, a target of demands, or a target of attention, depending on whether intimidation, coercion, or propaganda is primarily sought" - Schmid, 1988

[…] individual, group or state actors, for idiosyncratic, criminal or political reasons […]

[…] the direct targets of violence are not the main targets

Threat- and violence-based communication processes […] are used to manipulate the main target […]
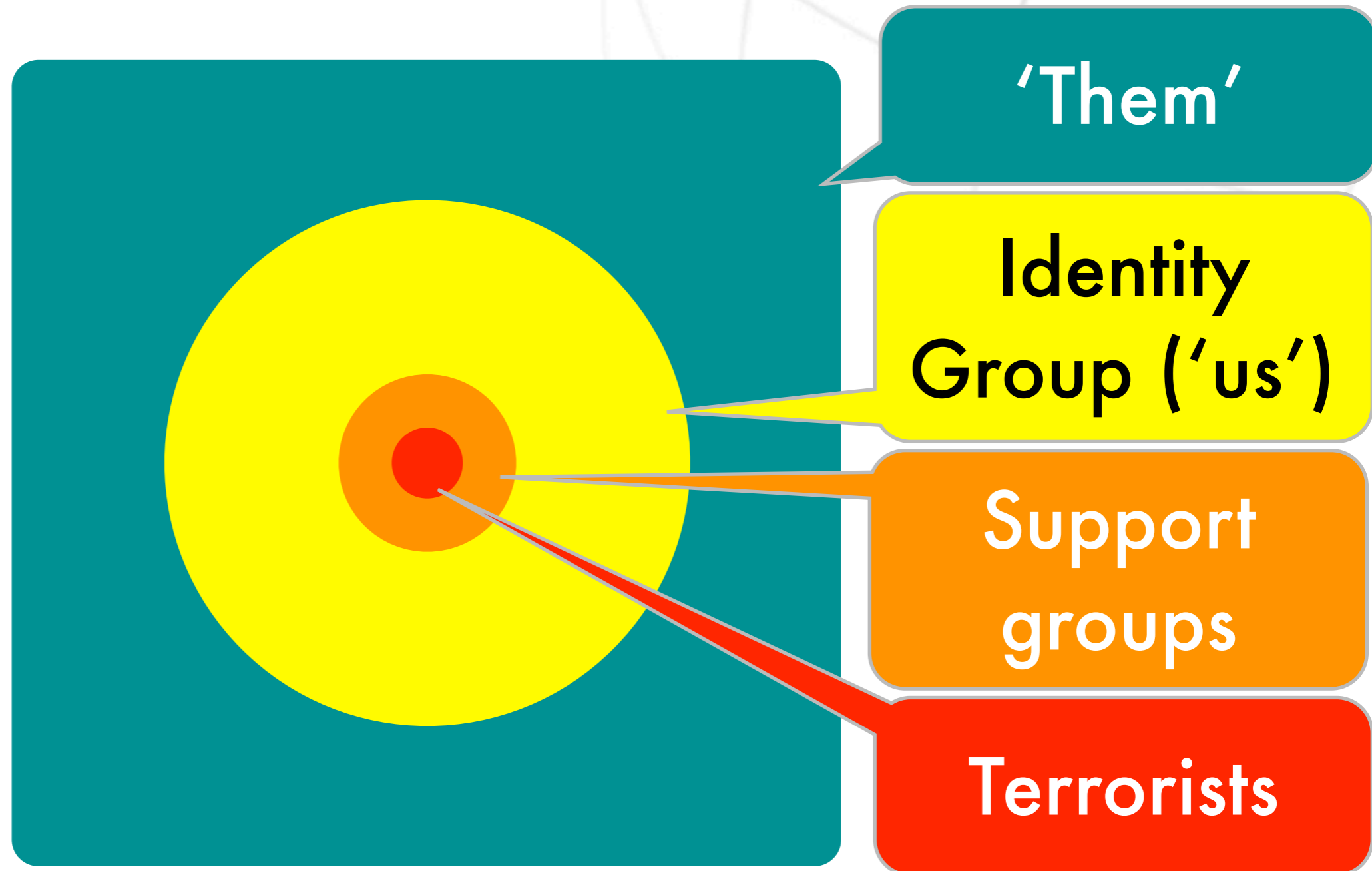
But it got revised in 2008 ...

1. Terrorism refers on the one hand to a doctrine about the presumed effectiveness of a special form or tactic of fear-generating, coercive political violence and, on the other hand, to a conspiratorial practice of calculated, demonstrative, direct violent action without legal or moral restraints, performed for its propagandistic and psychological effects on various audiences and conflict parties;

2. Terrorism as a tactic is employed in three main contexts: (i) illegal state repression, (ii) propagandistic agitation by non-state actors in times of peace or outside zones of conflict and (iii) as a illicit tactic of irregular warfare employed by state- and non-state actors;

3. The physical violence or threat thereof employed by terrorist actors involves single-phase acts of lethal violence (such as bombings and armed assaults), dual- phased life-threatening incidents (like kidnapping, hijacking and other forms of hostage-taking for coercive bargaining) as well as multi-phased sequences of actions (such as in 'disappearances' involving kidnapping, secret detention, torture and murder).

4. The public (-ised) terrorist victimization initiates threat-based communication processes whereby, on the one hand, conditional demands are made to individuals, groups, governments, societies or sections thereof, and, on the other hand, the support of specific constituencies (based on ties of ethnicity, religion, political affiliation and the like) is sought by the terrorist perpetrators;

5. At the origin of terrorism stands terror – instilled fear, dread, panic or mere anxiety - spread among those identifying, or sharing similarities, with the direct victims, generated by some of the modalities of the terrorist act – its shocking brutality, lack of discrimination, dramatic or symbolic quality and disregard of the rules of warfare and the rules of punishment;

6. The main direct victims of terrorist attacks are in general not any armed forces but are usually civilians, non-combatants or other innocent and defenseless persons who bear no direct responsibility for the conflict that gave rise to acts of terrorism;

7. The direct victims are not the ultimate target (as in a classical assassination where victim and target coincide) but serve as message generators, more or less unwittingly helped by the news values of the mass media, to reach various audiences and conflict parties that identify either with the victims' plight or the terrorists' professed cause;

8. Sources of terrorist violence can be individual perpetrators, small groups, diffuse transnational networks as well as state actors or state-sponsored clandestine agents (such as death squads and hit teams);

9. While showing similarities with methods employed by organized crime as well as those found in war crimes, terrorist violence is predominantly political – usually in its intent but nearly always in its societal repercussions;

10. The immediate intent of acts of terrorism is to terrorize, intimidate, antagonize, disorientate, destabilize, coerce, compel, demoralize or provoke a target population or conflict party in the hope of achieving from the resulting insecurity a favourable power outcome , e.g. obtaining publicity, extorting ransom money, submission to terrorist demands and/or mobilize or immobilize sectors of the public, etc.

11. The motivations to engage in terrorism cover a broad range, including redress for alleged grievances, personal or vicarious revenge, collective punishment, revolution, national liberation and the promotion of diverse ideological, political, social, national or religious causes and objectives;

12: Acts of terrorism rarely stand alone but form part of a campaign of violence which alone can, due to the serial character of acts of violence and threats of more to come, create a pervasive climate of fear that enables the terrorists to manipulate the political process.
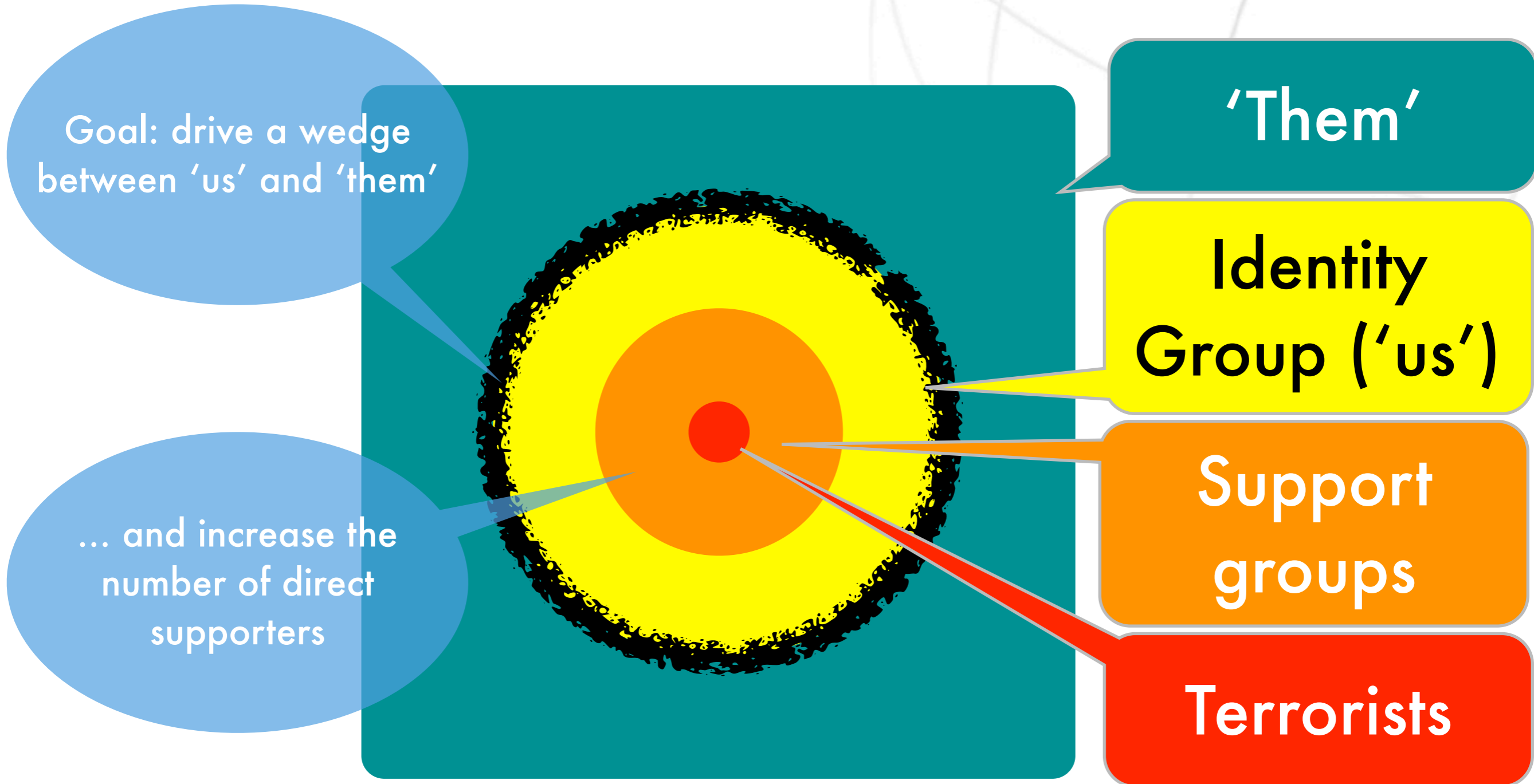
- But these definitions don't help us understanding what motivates terrorists

The Identity Group

'Them'

Identity Group ('us')

Support groups

Terrorists

The Identity Group

Goal: drive a wedge between 'us' and 'them'

... and increase the number of direct supporters

'Them'

Identity Group ('us')

Support groups

Terrorists

A Typology of Terrorism

Motivation

Geopolitical

Legitimately Motivated

Extremist

National

International

Claims to represent a legitimately aggrieved ID group

Aims to bring about an alignment with their philosophy

State-sponsored

[LMT]

[ET]

identity group may disagree

Can legitimately be considered an act of war

Ur-fascism

"[...] a list of features that are typical of what I would like to call Ur-Fascism [...]" - Umberto Eco

- 1. The first feature of Ur-Fascism is the cult of tradition.

- 2. Traditionalism implies the rejection of modernism.

- 3. Irrationalism also depends on the cult of action for action's sake.

- 4. The critical spirit makes distinctions, and to distinguish is a sign of modernism.

- 5. Besides, disagreement is a sign of diversity.

- 6. Ur-Fascism derives from individual or social frustration.

- 7. To people who feel deprived of a clear social identity, Ur-Fascism says that their only privilege is the most common one, to be born in the same country.

- 8. The followers must feel humiliated by the ostentatious wealth and force of their enemies.

- 9. For Ur-Fascism there is no struggle for life but, rather, life is lived for struggle.

- 10. Elitism is a typical aspect of any reactionary ideology, insofar as it is fundamentally aristocratic, and aristocratic and militaristic elitism cruelly implies contempt for the weak.

- 11. In such a perspective everybody is educated to become a hero.

- 12. Since both permanent war and heroism are difficult games to play,the Ur-Fascist transfers his will to power to sexual matters.

- 13. Ur-Fascism is based upon a selective populism, a qualitative populism, one might say.

- 14. Ur-Fascism speaks Newspeak.

Ur-fascism

"[...] a list of features that are typical of what I would like to call Ur-Fascism [...]" - Umberto Eco

Rejection of modernism

Rejection of diversity and the critical spirit

1. The first feature of Ur-Fascism is the cult of tradition.

2. Traditionalism implies the rejection of modernism.

3. Irrationalism also depends on the cult of action for action's sake.

4. The critical spirit makes distinctions, and to distinguish is a sign of modernism.

5. Besides, disagreement is a sign of diversity.

6. Ur-Fascism derives from individual or social frustration.

7. To people who feel deprived of a clear social identity, Ur-Fascism says that their only privilege is the most common one, to be born in the same country.

8. The followers must feel humiliated by the ostentatious wealth and force of their enemies.

Action for action's sake/ Live for the struggle

Contempt for the weak

9. For Ur-Fascism there is no struggle for life but, rather, life is lived for struggle.

10. Elitism is a typical aspect of any reactionary ideology, insofar as it is fundamentally aristocratic, and aristocratic and militaristic elitism cruelly implies contempt for the weak.

11. In such a perspective everybody is educated to become a hero.

12. Since both permanent war and heroism are difficult games to play, the Ur-Fascist transfers his will to power to sexual matters.

13. Ur-Fascism is based upon a selective populism, a qualitative populism, one might say.

14. Ur-Fascism speaks Newspeak.

Ersatz social identity

Selective populism

Political Legitimacy

- Modern political legitimacy is derived from established law and custom

- ID Group's perception is important

- LMT's are in a much better position than ET's

Legitimacy

- Terrorists believe their cause is legitimate

  - They argue their cases logically, but avoid uncomfortable facts

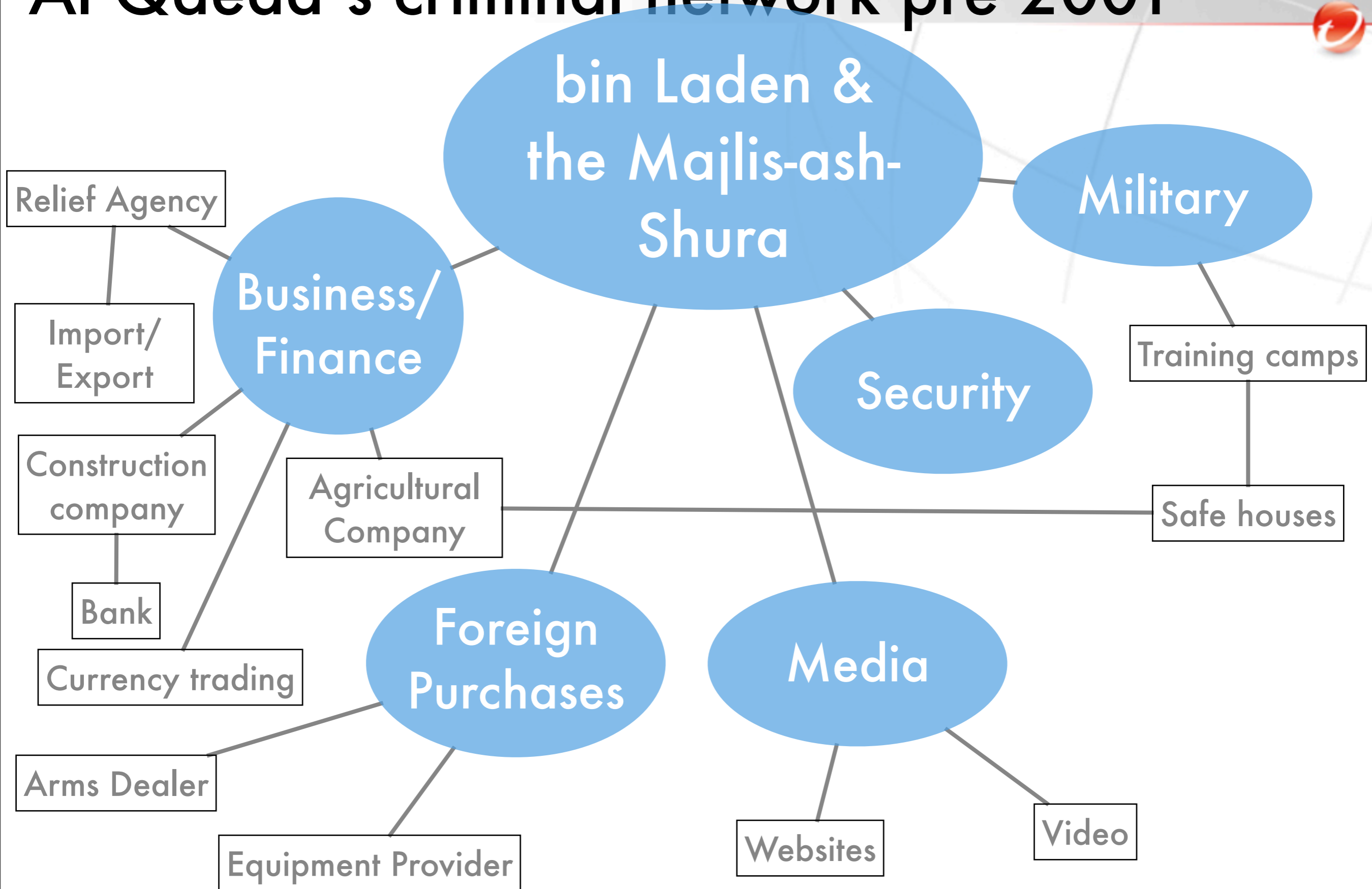 - When they can, they assume governmental roles

Legitimacy

- Justifications for every criminal act

- Manifestos to communicate the broader idea

- These help persuade the 'Sheeple'

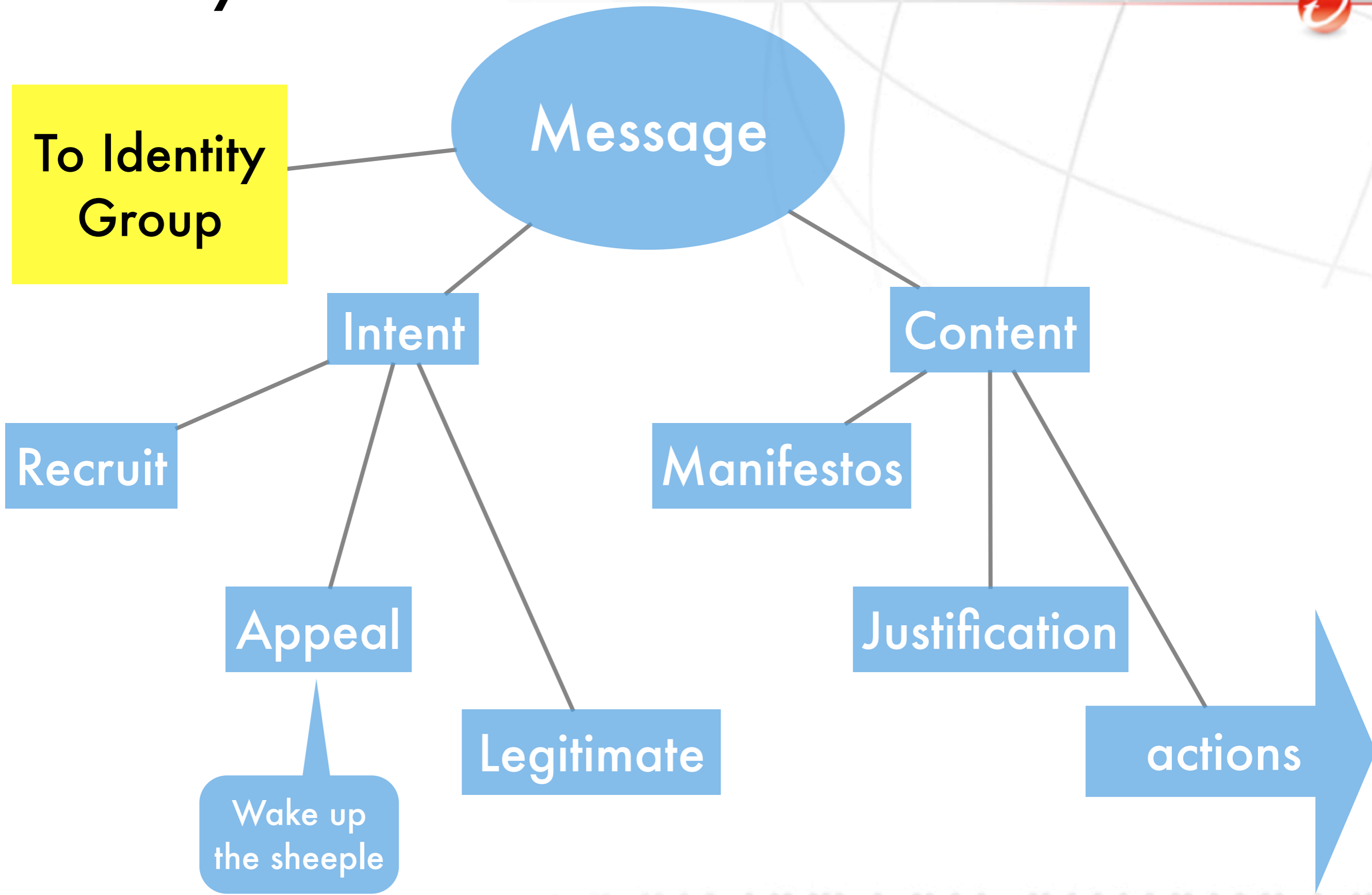- Do not consider themselves criminal

We wish to be treated "not as ordinary prisoners" for we are not criminals. We admit no crime unless, that is, the love of one's people and country is a crime. - Bobby Sands, MP, PIRA
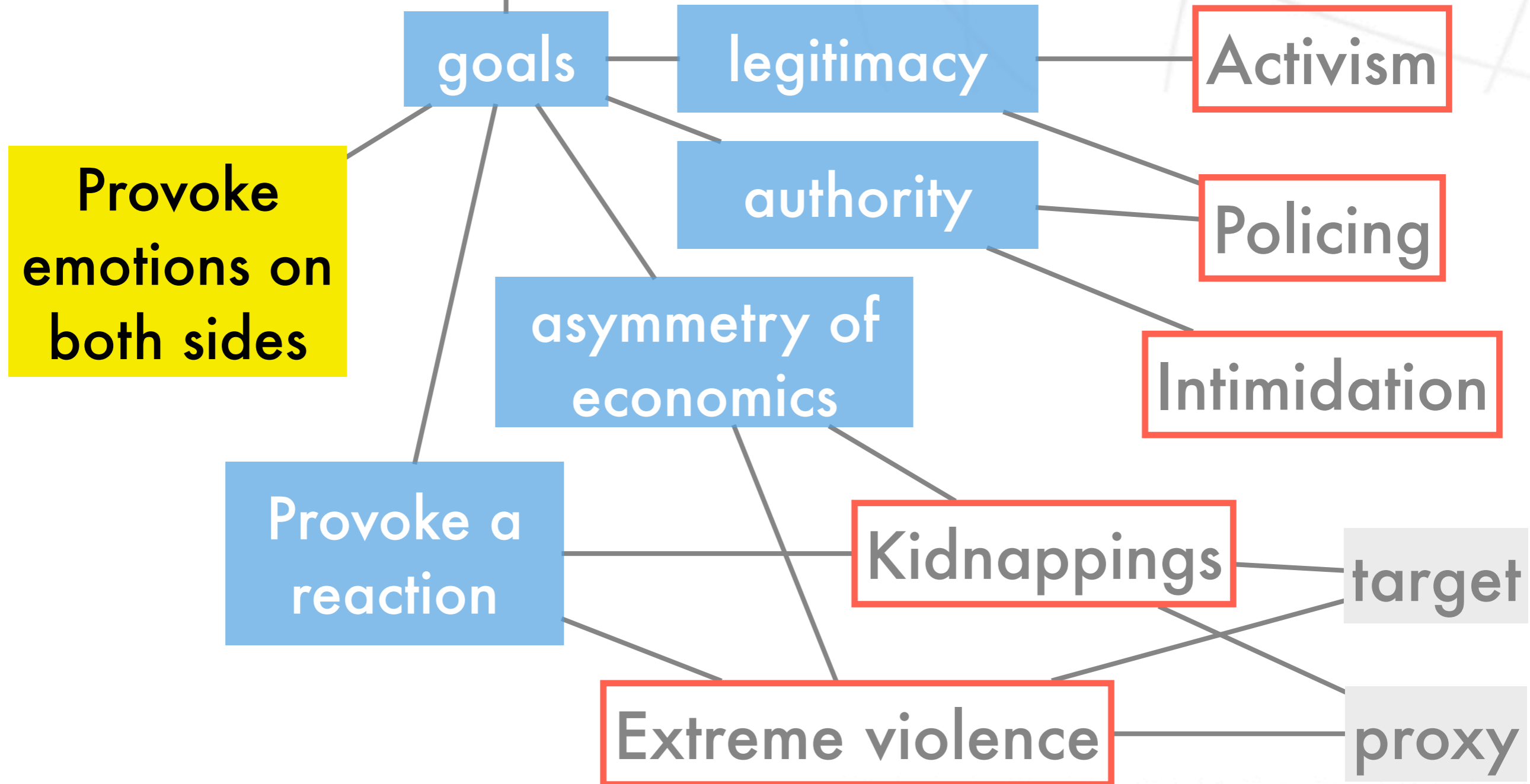
Al Qaeda's criminal network pre 2001

The Playbook

To Identity Group

Message

Intent

Content

Recruit

Manifestos

Appeal

Legitimate

Justification

actions

Wake up the sheeple

message ➔ **The Action**

goals

Provoke emotions on both sides

legitimacy

Activism

authority

Policing

asymmetry of economics

Intimidation

Provoke a reaction

Kidnappings

target

Extreme violence

proxy

Cyberterrorism

"...the convergence of terrorism and cyberspace. It is generally understood to mean unlawful attacks against computers, networks, and the information stored therein when done to intimidate or coerce a government or its people in furtherance of political or social objections. Further, to qualify as cyberterrorism, an attack should result in violence against persons or property, or at the least cause enough harm to generate fear. Attacks that lead to death or bodily injury, explosions, plane crashes, water contamination, or severe economic loss would be examples."

- As defined by Dr. Dorothy Denning, is an extension of the 1988 academic consensus

- Specifically emphasizes violent crime
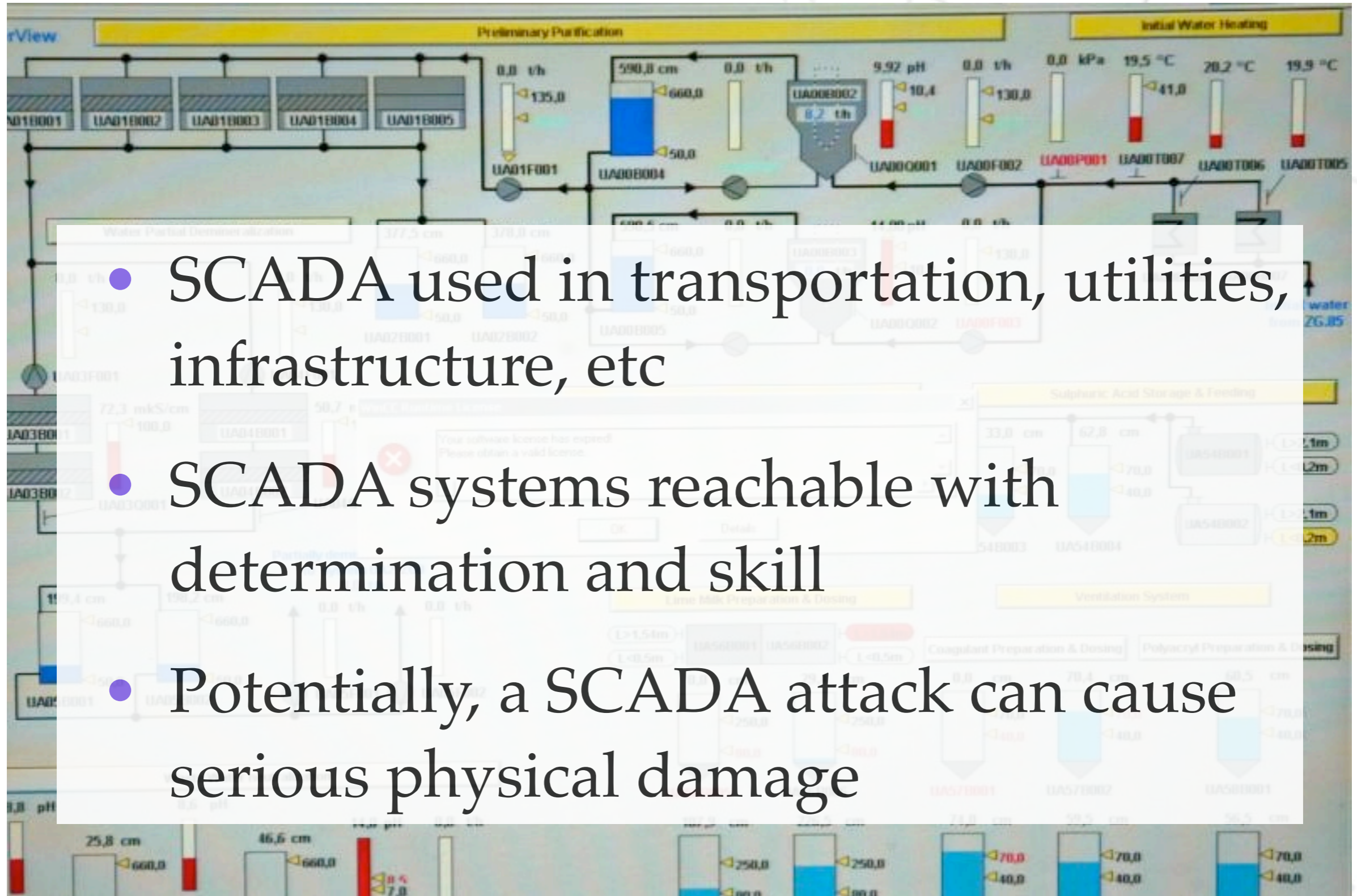
Terrorist goals on the Internet

- Recruitment and Propaganda

  - Certainly a primary use

  - Good way of disseminating information

    - David Tucker cites no concrete evidence that Internet leads to radicalization

  - Fundraising

- Not however an attack, per se

http://www.hsaj.org/?fullarticle=6.1.3

Cyberterrorism?

- Do normal terrorist activities map well to cybercrime activities?

  - There is no online equivalence of extreme violence!

  - Stuxnet interesting in this context

Attacks against critical non-Internet infrastructure

- SCADA used in transportation, utilities, infrastructure, etc

- SCADA systems reachable with determination and skill

- Potentially, a SCADA attack can cause serious physical damage

- Certainly criminal; may constitute an act of war if state sponsored

- Economic damage would be assured

- May reach the ID group emotionally if the effects are visible enough

- But, for example, despite sophistication, the emotional impact of Stuxnet was low

Internet terrorist attacks?

- Traditionalism vs technology

- Internet is viewed as useful media

  - Mostly fanboy sites, though

- Attacking Internet unlikely to cause the emotions required

- But they do attack and snoop on each other

Possible exceptions

- National terrorists in a well-connected country may find cyberterrorism attractive

- Currently, this isn't happening because of their traditionalism and paranoia

A new era?

- Large Internet-based companies as meta-countries

  - Playing significant role in lives

  - May provoke an Internet-based terrorist movement

  - Is this what happened to Google in China? No, but hactivism.

Conclusions

- Cyberterrorism remains unlikely

- Support groups are using cyberattacks, though

- They are also a source of intel on ISP reputation

- Worth studying, but treat like any other crime scene

- … and prepare for catastrophic events of this nature

Trend Micro | Securing Your Web World

The end

swimmer@acm.org