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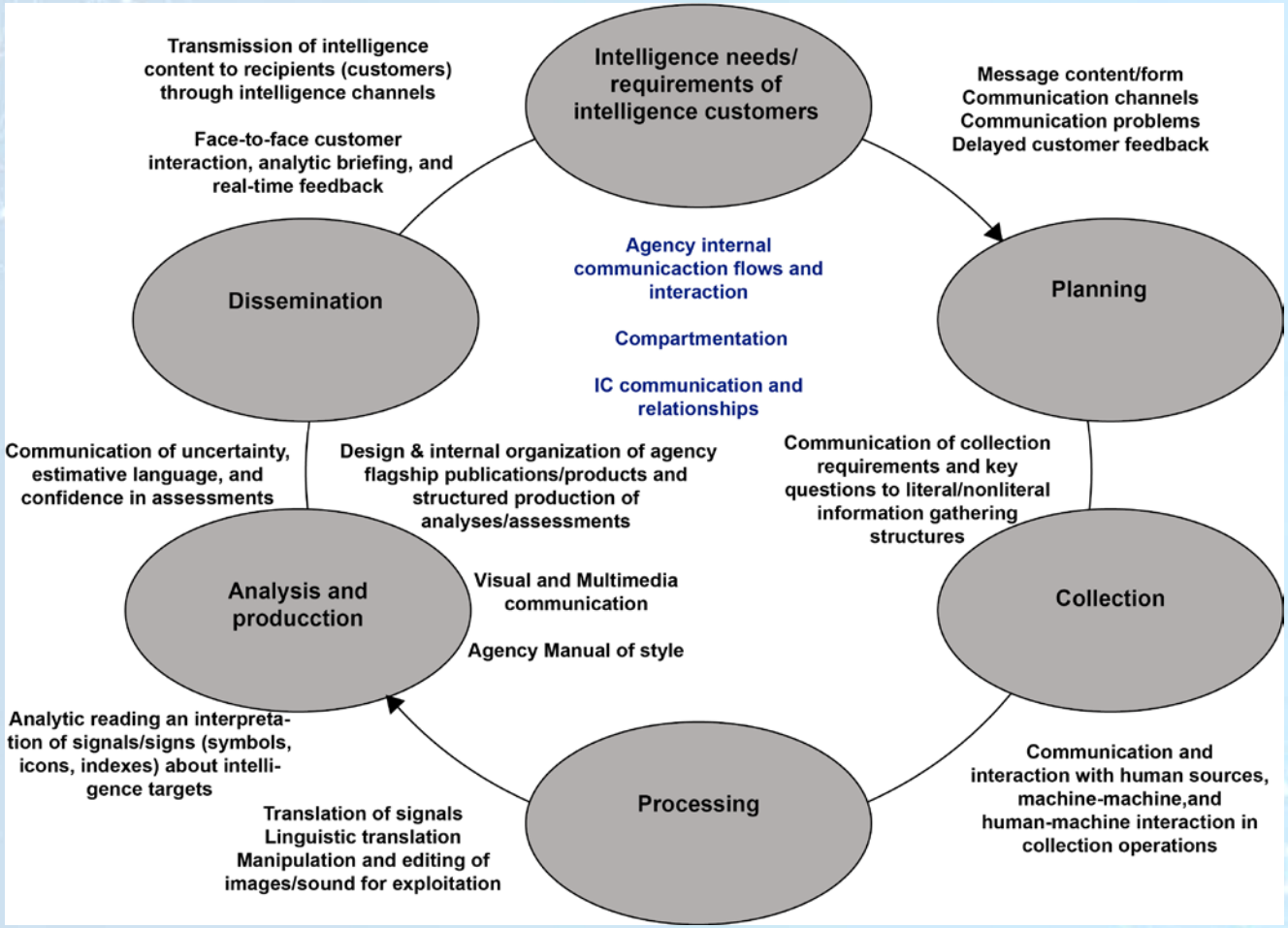
Short Bio

- Lecturer, Department of Communication Sciences and Sociology, Rey Juan Carlos University.
- Researcher and Deputy Director, Centre for Intelligence Services and Democratic Systems. www.serviciosdeinteligencia.es
- Coordinator of the Interuniversity-Master's program in Intelligence Analysis (URJC-UC3M). www.masteranalistadeinteligencia.com
- Founder and Chair, SCIP Spain Chapter.
- Founder and Co-director, International Online Intelligence Hub – IntelHub. http://www.apus.edu/academic-community/research/intelhub
- Deputy Editor, The International Journal of Intelligence, Security, and Public Affairs. www.tandfonline.com/USIP
- Freelance contributor, IHS Jane's Intelligence Review http://www.janes.com/magazines/ihs-janes-intelligence-review

Bottom Line Up Front: Some Key Points

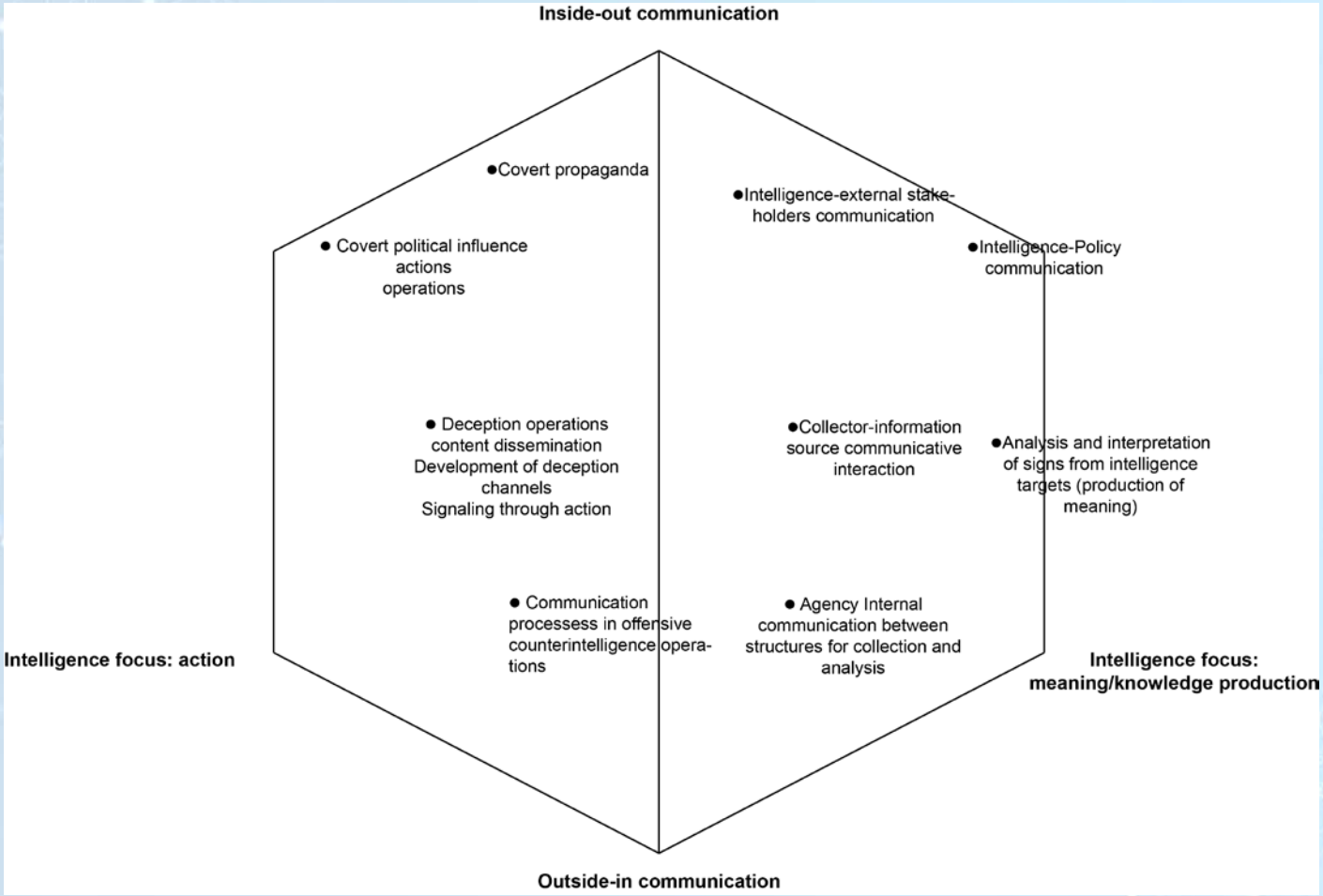
- **Communication** has always been **a cornerstone of the intelligence function** for decision making and in our digital era communication becomes even more important.
- The dissemination of analyses and assessments to the intelligence customers in response to their needs, requires a communication-savvy structured production process based on the knowledge of the principles and best practices of effective communication and a careful use of symbolic communication systems, uncertainty, and risks communication standards, iconic communication, **and increasingly, the skillful use of digital and interactive communication tools for maximizing the impact**.
- **Countering disinformation campaigns and covert influence operations** conducted through open communication channels requires an **understanding** of **the communication environment**, its processes and how communication can affect beliefs, attitudes and human behaviors.
- "Communication is power", the new "knowledge is power".

Communication processes and areas along the intelligence cycle



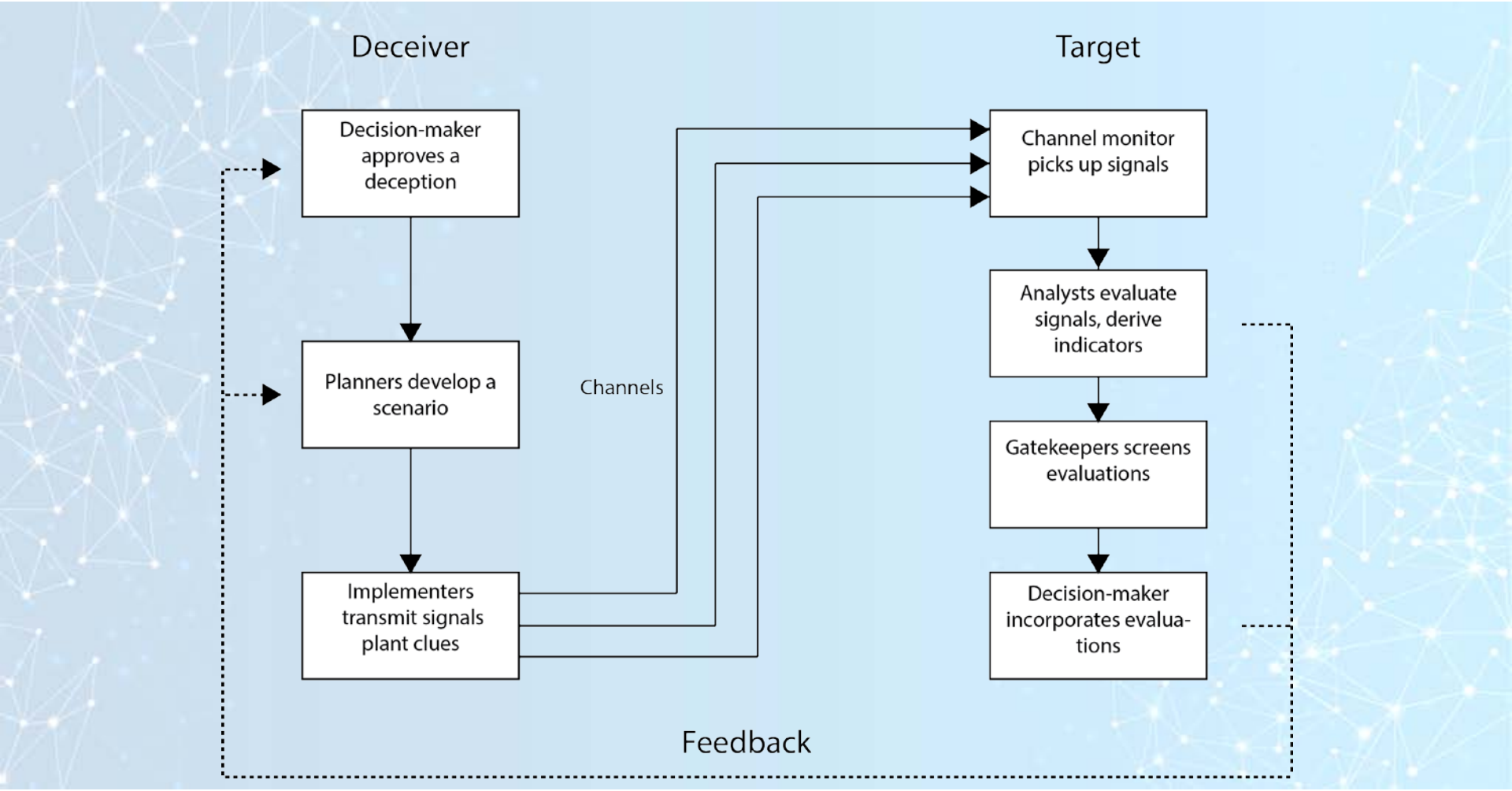
Source: Arcos 2017

Why and How communication is a key element of the intelligence enterprise and intelligence disciplines



Source: Arcos 2017

Understanding how deception works as the basis for countering it: deception as a communication process

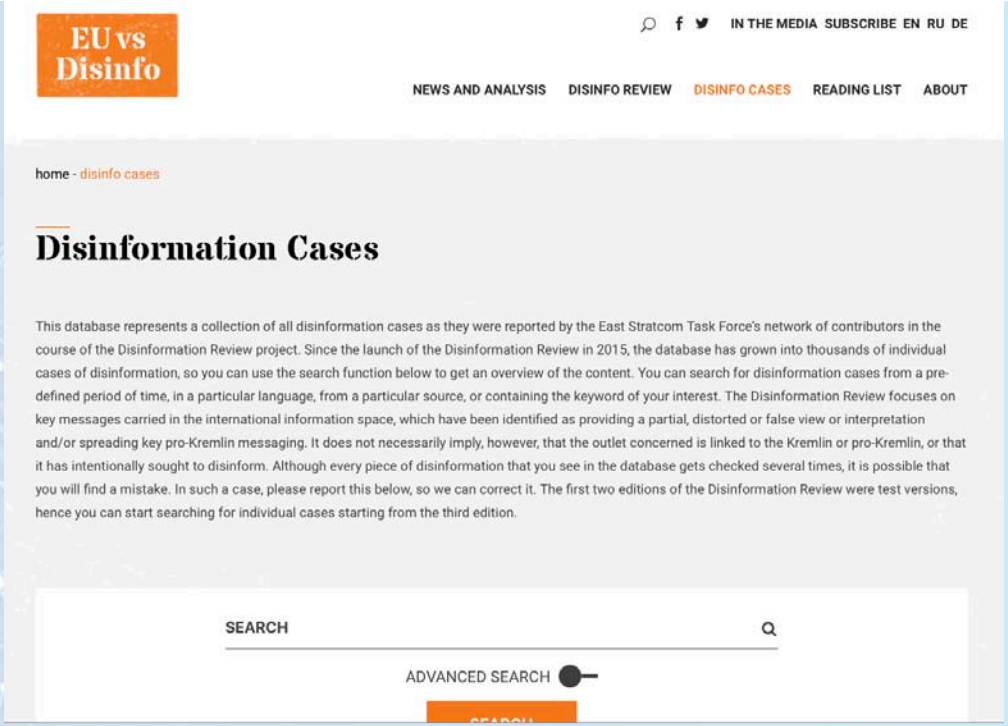


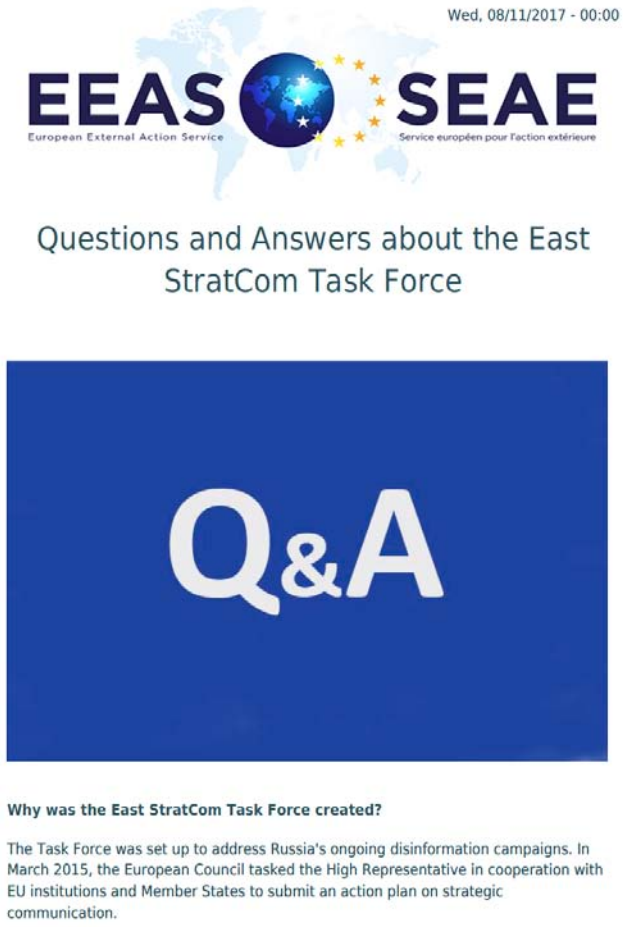
Source: Daniel & Herbig 1982

Intelligence-led Strategic Communication

Source: Arcos 2017

The EU response to fake news and disinformation





Disinformation and foreign political interference included in Spanish National Security Strategy 2017

EL PAÍS IN ENGLISH

NATIONAL SECURITY

Spain's national security strategy to include risk of disinformation campaigns

Latest government document does not specifically mention Russia, but alludes to recent interference in Catalan crisis and Brexit

Spain's latest National Security Strategy document, which sets out the risks to the country's security and the means and measures to be taken in order to deal

Source: El País

Disinformation and interference in electoral processes in Spanish NSS 2017

ESTRATEGIA DE **SEGURIDAD NACIONAL**

2017

UN PROYECTO COMPARTIDO
DE TODOS Y PARA TODOS

GOBIERNO DE ESPAÑA | PRESIDENCIA DEL GOBIERNO

Ligado en gran medida a la situación de crisis económica de estos años, el auge de grupos con visiones proteccionistas y nacionalistas exclusivistas es una de las notas dominantes de este periodo. Este fenómeno se ha aprovechado de factores de fondo como la desaceleración del crecimiento económico, la desigualdad o la polarización social e identitaria, y ha adquirido una mayor relevancia internacional y estratégica. La influencia de movimientos exclusivistas crece por el uso masivo de las redes sociales. Asimismo, la manipulación de la información por parte de agentes externos ejerce de factor de influencia en la era de la posverdad, con efectos negativos en la cohesión social y la estabilidad política.

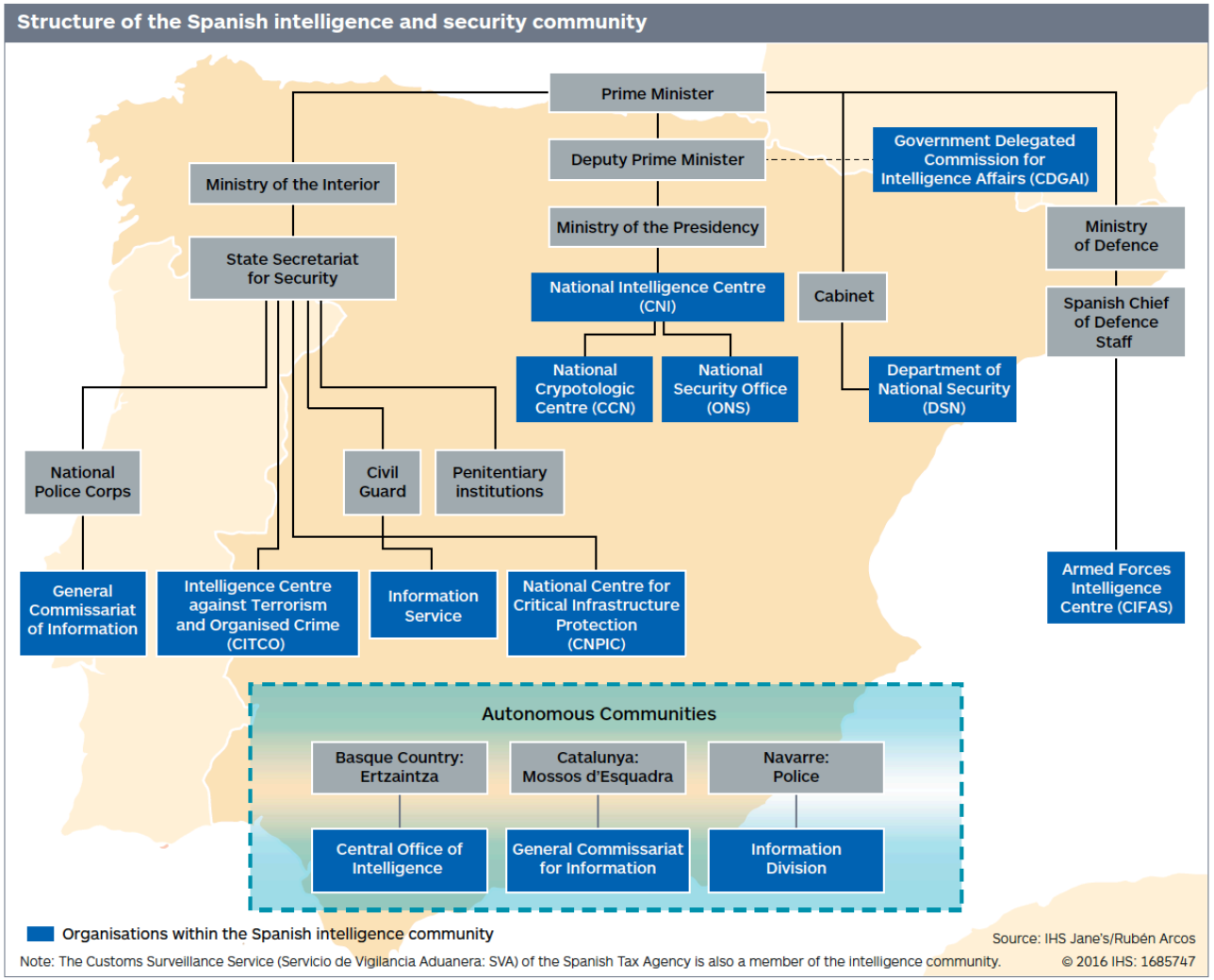
La confluencia de este conjunto de dinámicas contradictorias y tensiones de distinto signo aumenta la presión sobre el orden internacional del que es parte España y de cuyo buen funcionamiento depende su seguridad y bienestar. A su vez, fenómenos como las asimetrías demográficas entre regiones geográficas, las presiones migratorias o el cambio climático han adquirido aún mayor importancia para la seguridad.

Por ello, España está comprometida con un orden internacional basado en la legalidad y una gobernanza global más justa, inclusiva y eficaz. España apuesta por la diplomacia preventiva, por la solución pacífica de las controversias internacionales y por el diálogo, incluido el intercultural e interreligioso. Su concepción de la seguridad incorpora dimensiones humanas como el respeto de los derechos fundamentales y la protección frente a la enfermedad y la pobreza.

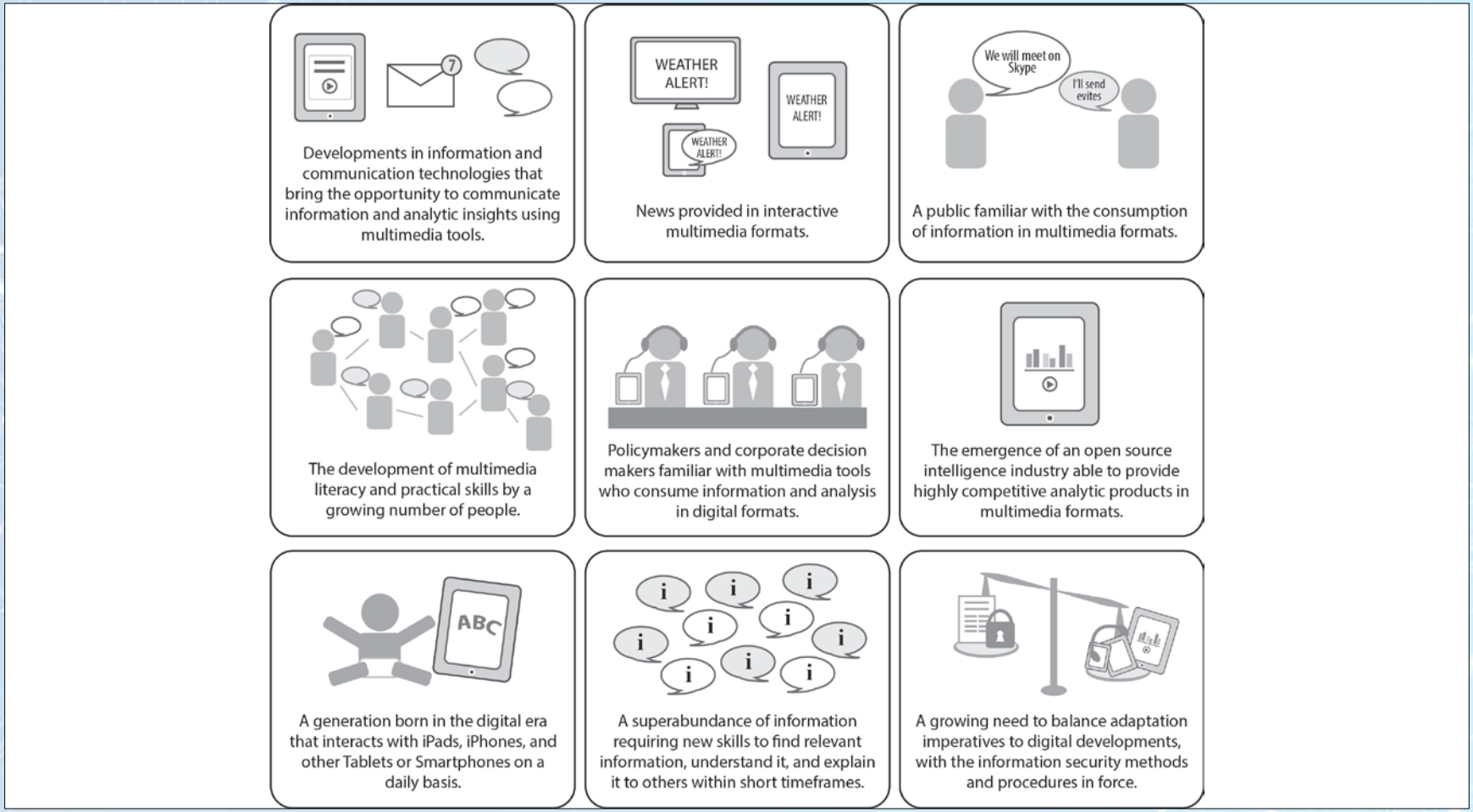
Por otra parte, una de las dinámicas más notables, y con impacto en el día a día de los ciudadanos, es el ritmo acelerado de transformación impulsado por las tecnologías. Son evidentes los cambios que la revolución tecnológica está incorporando en el modo de vida de los ciudadanos. El desarrollo de la tecnología es un instrumento de activación económica, crecimiento y progreso, pero también prueba la capacidad de adaptación de sociedades a los cambios tecnológicos.

En gran medida, la tecnología ha premiado la interconectividad en detrimento de la seguridad. Así, actos como el robo, uso y difusión de la información y datos sensibles y acciones hostiles que incluyen actividades de desinformación e interferencias en procesos electorales representan hoy un desafío de grandes dimensiones tanto en

Structure of the Spanish Intelligence and security community



A digital revolution changing expectations on intelligence communication



Source: Arcos 2015: 12

Production and consumption of digital products already occurring

Source: Arcos 2015: 12

Intelligence production: traditional text vs hypertext

- "All **traditional text,** whether in printed form or in computer files, **is sequential**, meaning that there is a single linear sequence defining the order in which the text is to be read […] **Hypertext is nonsequential**; there is no single order that determines the sequence in which the text is to be read […] Hypertext presents several different options to the readers, and the individual reader determines which of them to follow at the time of reading the text. This means that **the author of the text has set up a number of alternatives for readers to explore rather than a single stream of information […] hypertext consist of interlinked pieces of text (or other information)**."

Source: Nielsen 1995: 1-2

Intelligence UX

- A “digital turn” in intelligence communication needs take into consideration the fields of information design and interaction design, as well at the concept of user experience (UX).
- All of them provide a framework that sets the stage for digital communication and news design for interactive media that can be useful for intelligence communication in the 21st Century.

Source: Arcos 2015: 13

Intelligence consumer experience

- As noted by Hartson and Pyla, the concepts of UX and design do not necessarily entail high-tech artifacts; technology is rather a design context (Hartson and Pyla 2012).
- In the field of interaction design, UX integrates the concepts of utility and usability but adds other components. UX is an expansion of the concept of usability design.
- UX is “the totality of the effect or effects felt by a user as a result of interaction with, and the usage context of, a system, device, or product, including the influence of usability, usefulness, and emotional impact during interaction, and savoring the memory after interaction. Interaction with is broad and embraces seeing, touching, and thinking about the system or product, including admiring it and its presentation before any physical interaction.” (Hartson and Pyla 2012: 19).

Source: Arcos 2015

So What

- Adopting a user-focused approach when producing analyses is critical in order to be relevant for intelligence consumers.
- Products that provide a satisfactory UX are more likely to impact decisions.
- In a world of information and cognitive overload, the analyst has to struggle to capture the attention of the intelligence client. It is not enough, although desirable and certainly the most important for the intelligence service mission, to collect the best possible information and provide the best possible analysis. **Much more than in the past, intelligence analyses competitiveness is now affected by the manner in which an insightful analysis and strategic information is conveyed to consumers**.

Source: Arcos 2015

Usefulness of analytic products

- Usefulness, defined as the capability of a system to be used to achieve a goal, can be broken down into two categories: usability and utility.
- “Utility is the question of whether the functionality of the system can do what is needed, and usability is the question of how well users can use the functionality.” Nielsen 1993: 25.
- The concept of usability applies to all aspects related to the systems with which we interact. It consists of five attributes: learnability (easy to learn), efficiency (efficient to use), memorability (easy to remember), errors (low error rate), and satisfaction (subjectively pleasant to use).
- Accordingly, intelligence products should be designed by taking usability and its components into account.

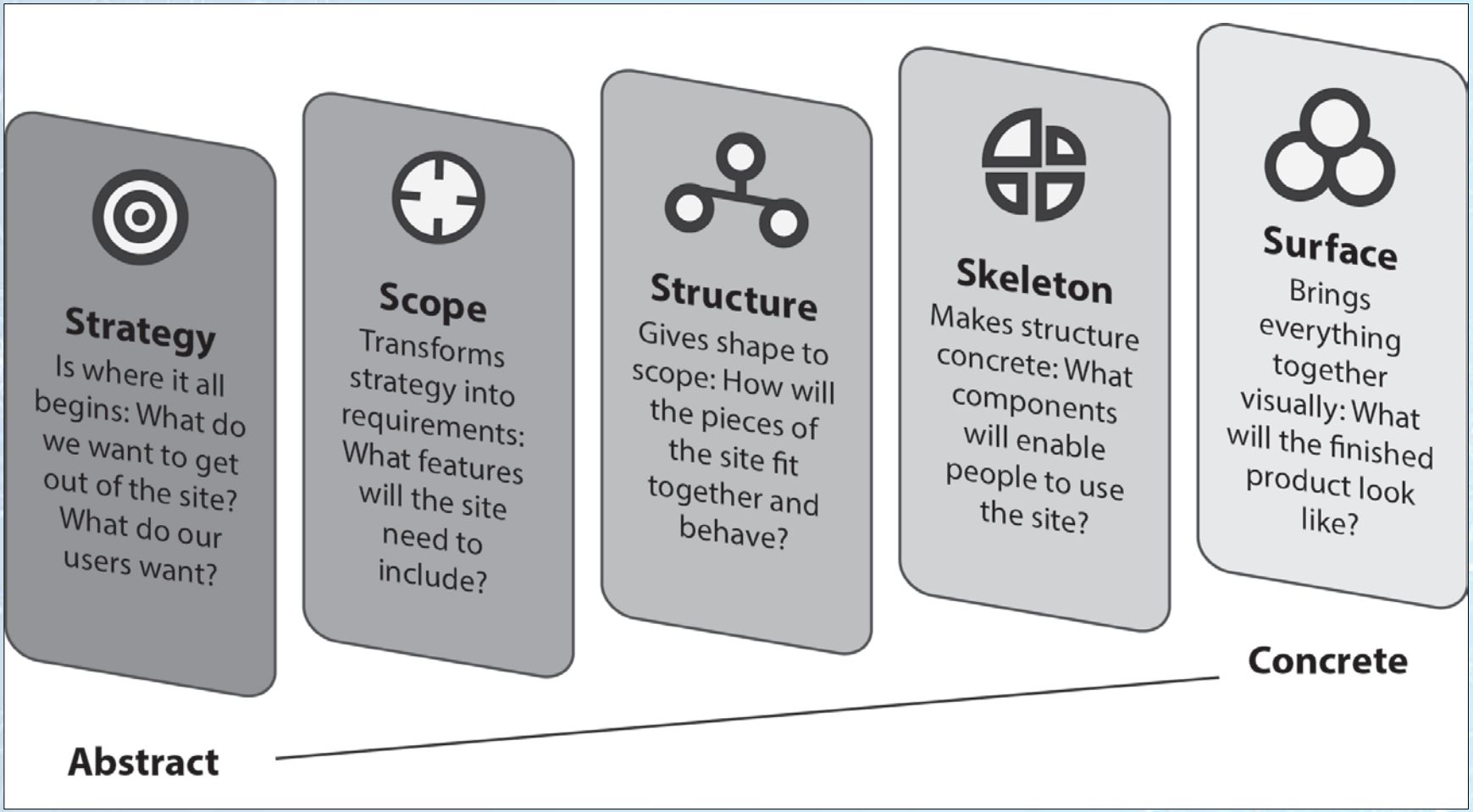
Source: Arcos 2015

Usability attributes applied to analytic products

Usability attributes	Meaning	Application to analytic products
Learnability	Easy to learn	The structural organization (inverted pyramid approach) of the product facilitates interaction by the user. Degrees of uncertainty and the quality of sourcing are expressed using an easy system of words/numbers.
Efficiency	Easy to use	The paper present a clear picture addressing the "so what" putting the bottom line up front, with key judgments and implications highlighted.
Memorability	Easy to remember	Layout template is easy to remember (title, headings, bottom-line, key judgments) and the paper tells a compelling story.
Errors	Low error rate	Avoidance of misspellings, grammatical errors, unfounded assumptions, and poor logic.
Satisfaction	Pleasantly used	Preference for one system (analytic product) over others, visually effective, attractive layout, and good use of graphics.

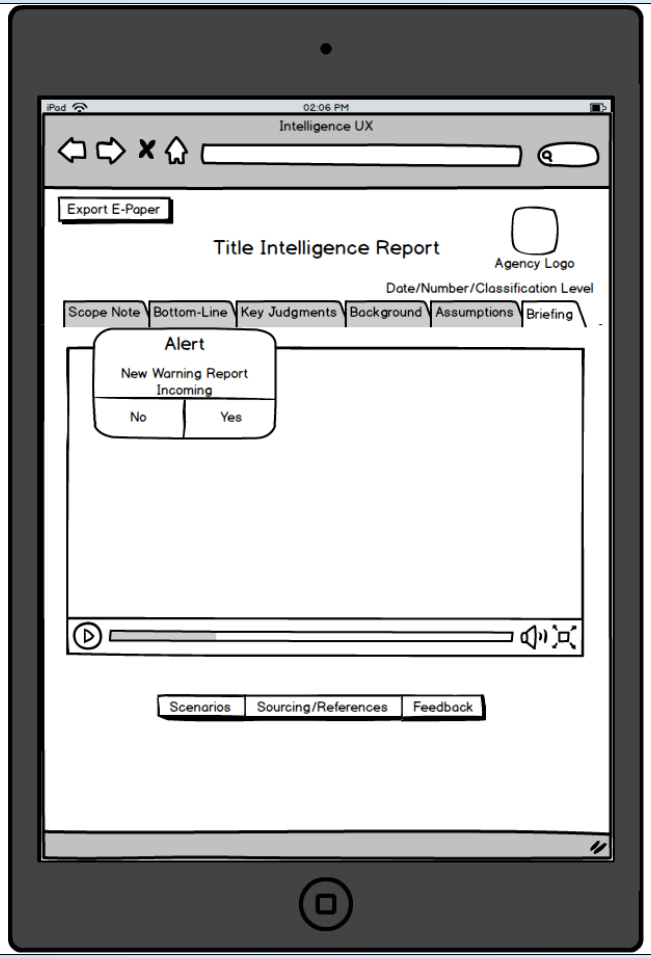
Source: Arcos 2015: 14

Garret's 5 planes of UX



Source: Arcos 2015: 20

Wireframing a digital intelligence product: Information structure, labeling and interaction



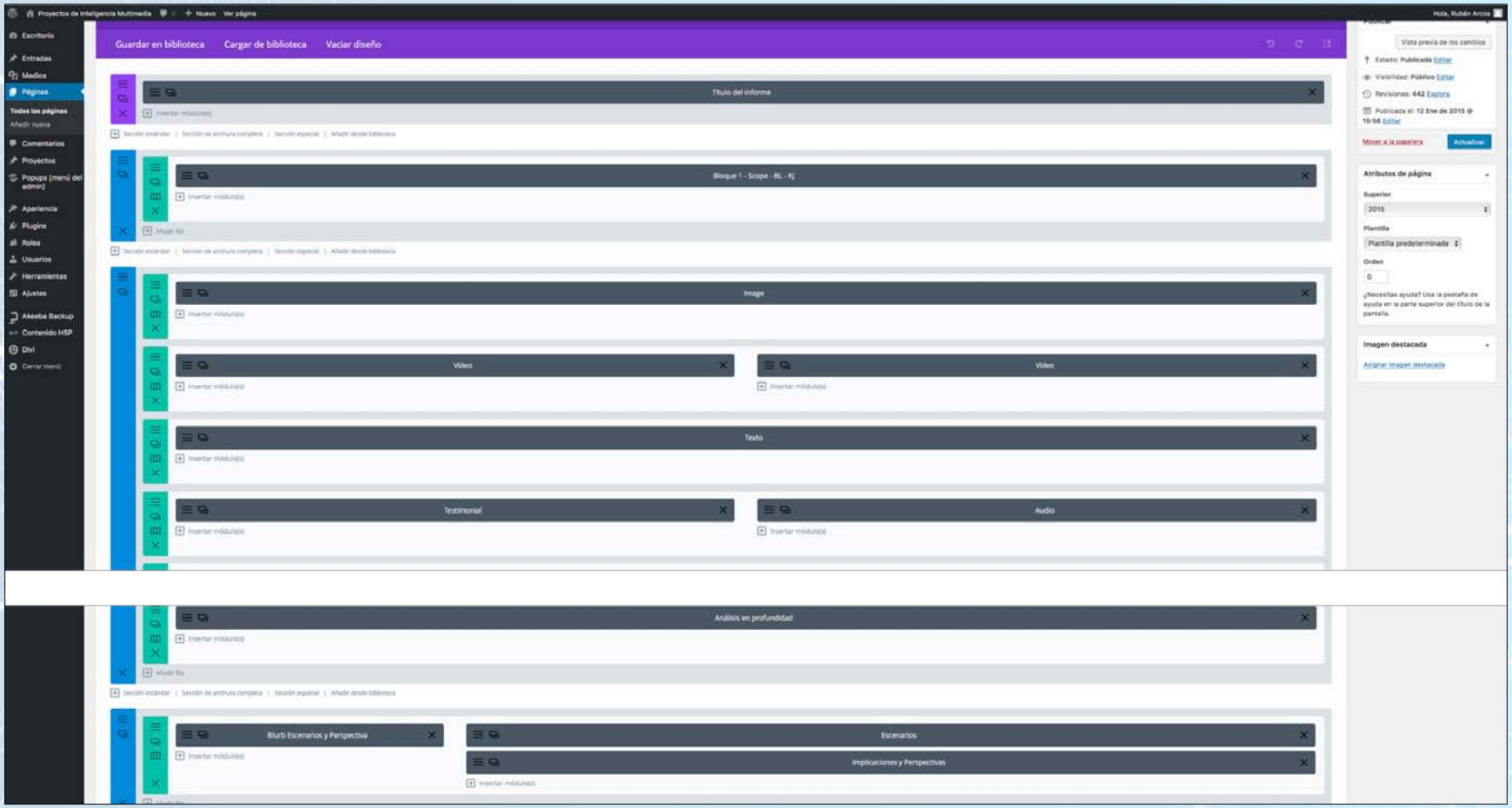
Source: Arcos 2015: 18

CMS and theme MAI 2017

NIC’s assessments based internal structure with tabs

- Scope Note
- Bottom-line
- Key Judgements
- Background
- Assumptions
- Video-briefing
- Scenarios
- Sourcing and references (including source evaluation)
- Export as E-paper (an embedded intelligence report that can be exported as in portable document format)

CMS and theme MAI 2017



Back-end view and internal structure of a multimedia intelligence product develop by the students of the Inter-University Master's degree in Intelligence Analysis. Source: http://ciberimaginario.es/proyectos/pim

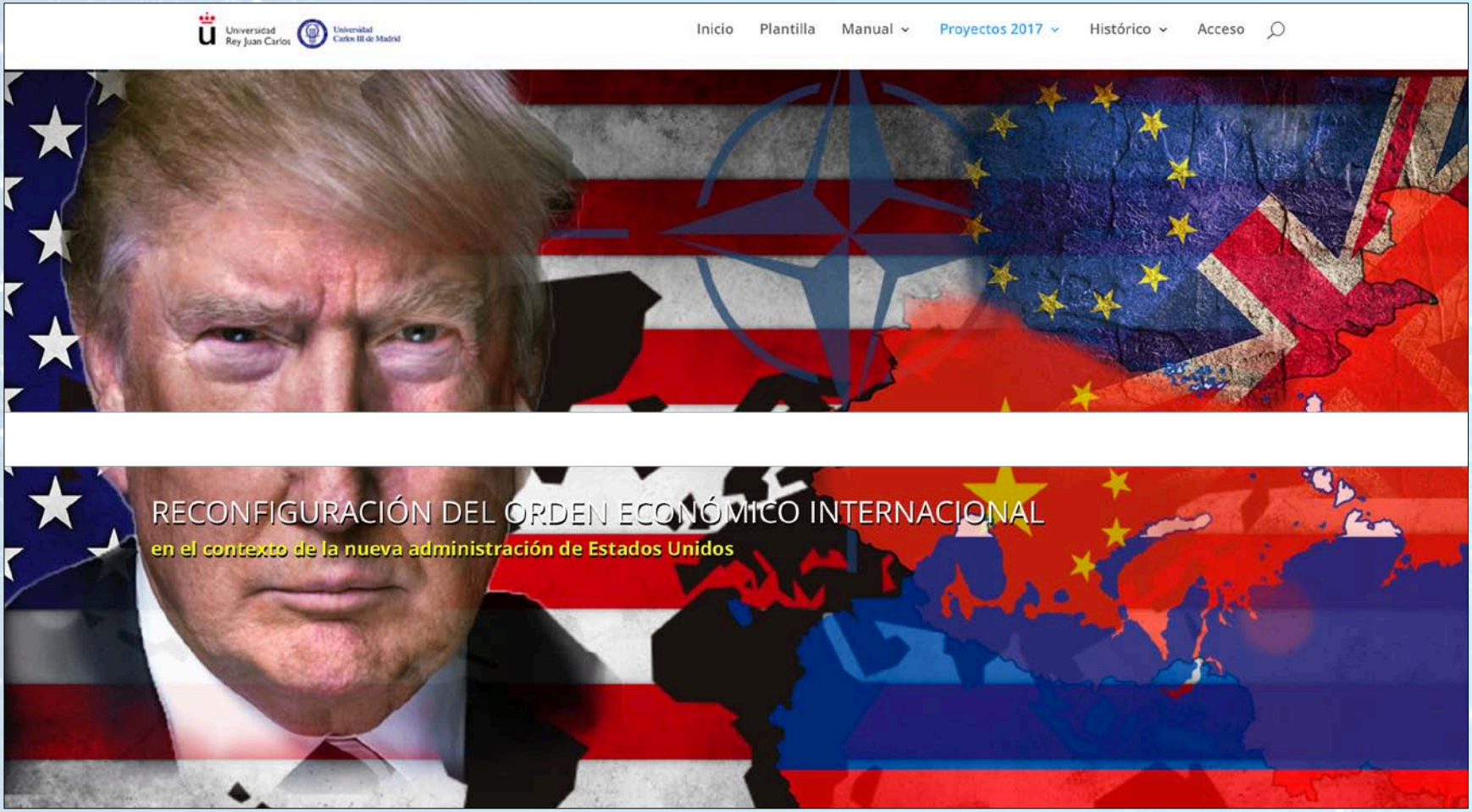
Communicating uncertainty in analytic products

US ICD 203			
Almost no chance	**Remote**	**01-05%**
Very Unlikely	Highly improbable	05-20%
Unlikely	Improbable	20-45%
Roughly even chance	Roughly even odds	45-55%
Likely	Probable	55-80%
Very likely	Highly Probable	80-95%
Almost certain	Nearly certain	95-99%

UK Defense Intelligence Uncertainty Yardstick	
Remote or highly unlikely	**< 10%**
Improbable or unlikely	15-20%
Realistic probability	25-50%
Probable or likely	55-70%
Highly probable or highly likely	75-85%
Almost certain	>90%

Verbal expressions of likelihood and tied numerical probability for expressing uncertainty in analytic judgments

Landing webpage of a multimedia assessment produced by the students of the MA program



Medias

CMS and Information Sharing Environment

Videos and Images. (emotional impact needs to be considered)

Interactive Timelines

Interactive Maps

Live news feeds embedded in the products

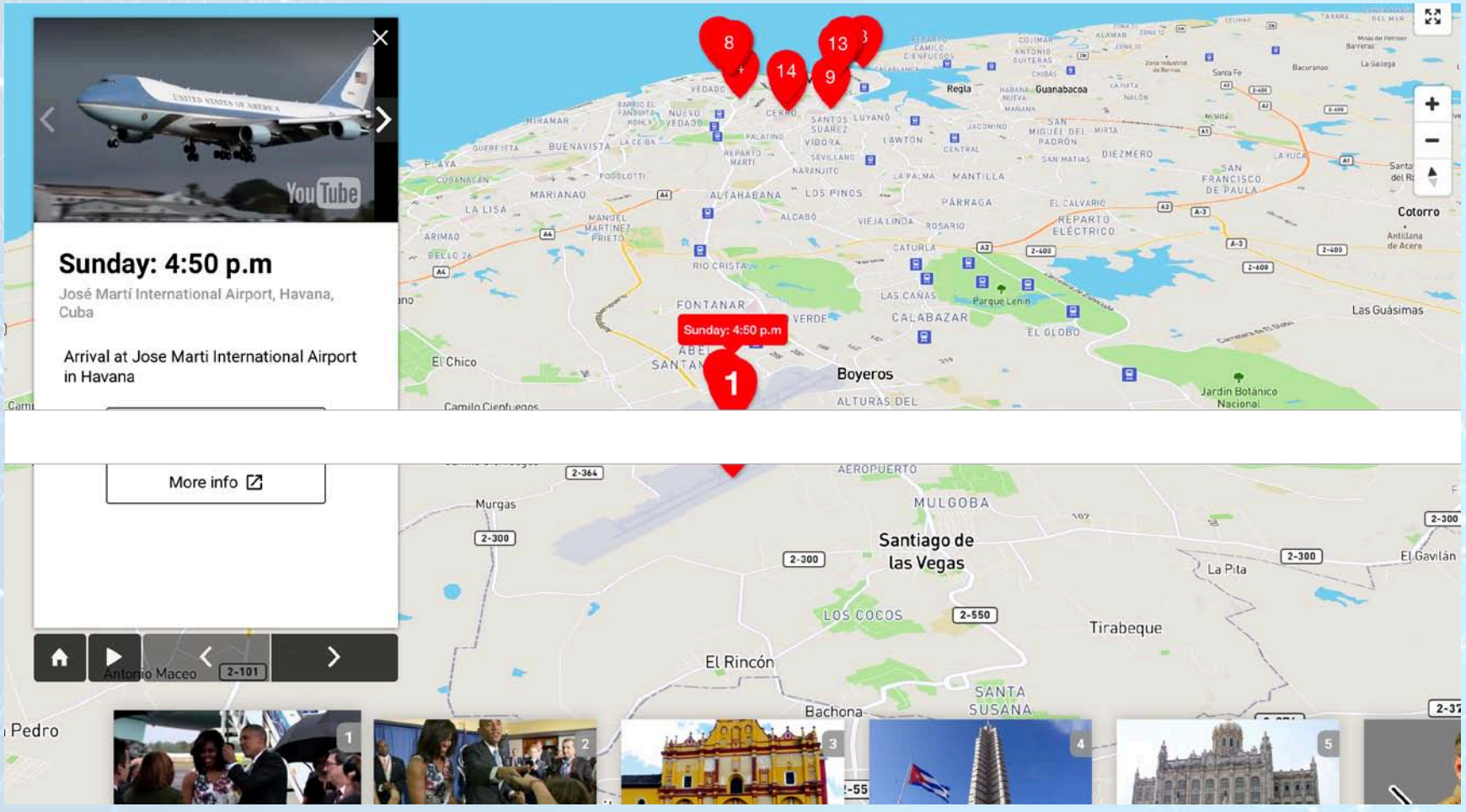
Infographics

Datavis

Video-briefing

E-paper

Narrative and maps

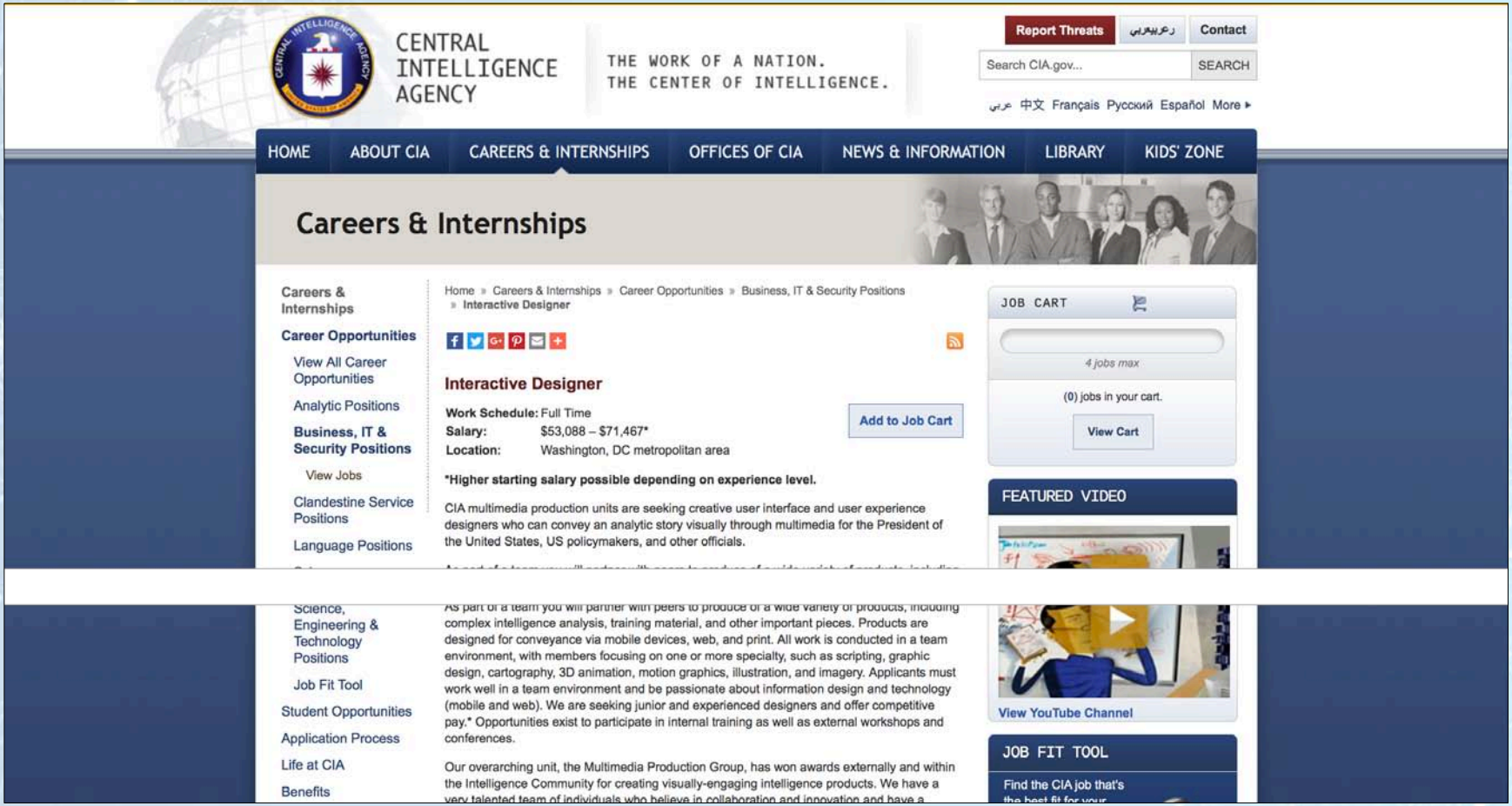


Intelligence visualization

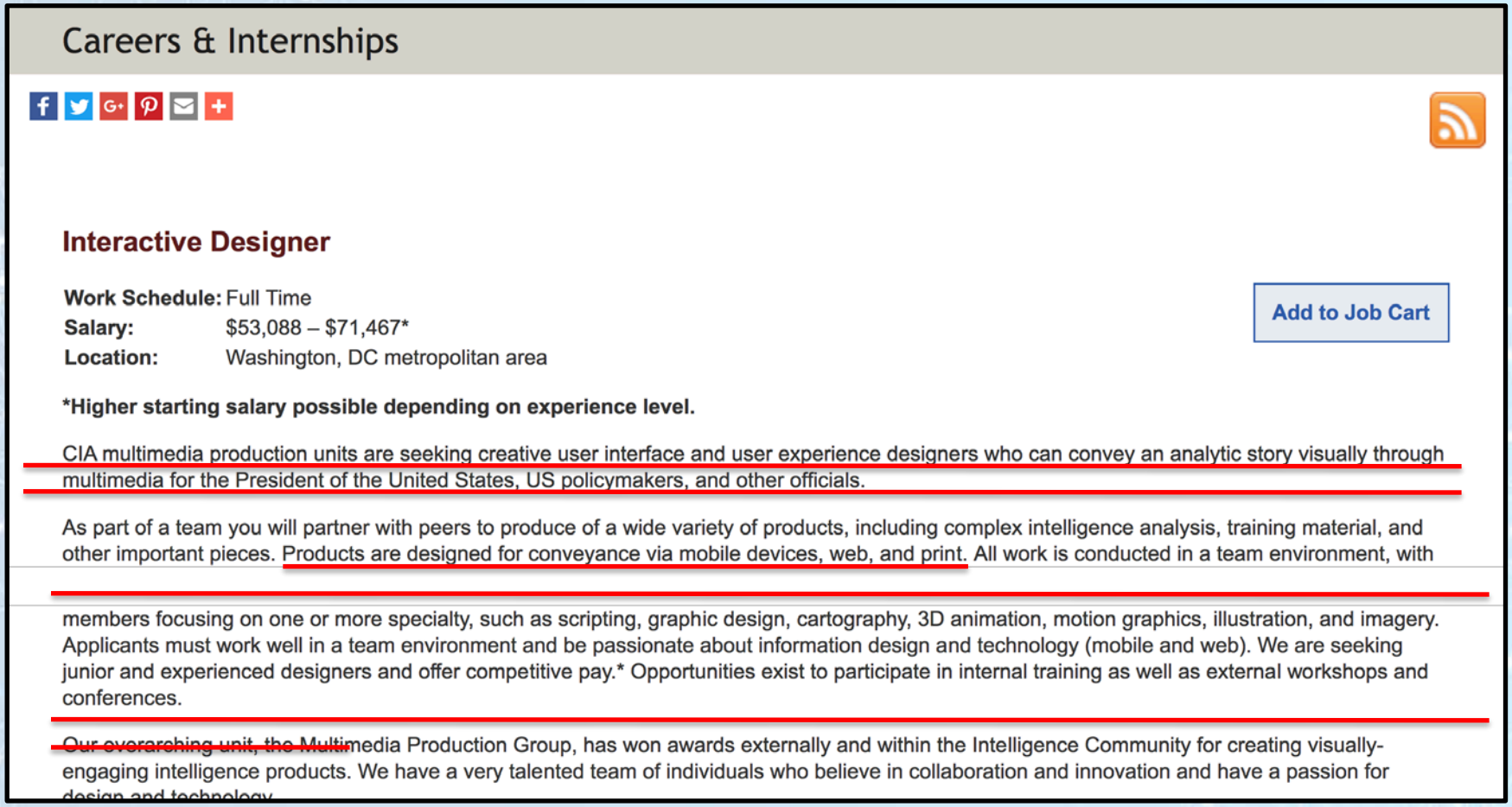
- "The mission of the Cartography Center is to provide a full range of maps, geographic analysis, and research in support of the Agency, the White House, senior policymakers, and the IC at large. Its chief objectives are to analyze geospatial information, extract intelligence-related geodata, and **present the information visually in creative and effective ways for maximum understanding by intelligence consumers**." (CIA 2016).

"CIA Cartography Center has been making vital contributions to our Nation's security, providing policymakers with **crucial insights that simply cannot be conveyed through words alone**." Source: CIA

Multimedia Intelligence Production



Multimedia Intelligence Production



Careers & Internships

Interactive Designer

Work Schedule: Full Time
Salary: $53,088 – $71,467*
Location: Washington, DC metropolitan area

Add to Job Cart

***Higher starting salary possible depending on experience level.**

CIA multimedia production units are seeking creative user interface and user experience designers who can convey an analytic story visually through multimedia for the President of the United States, US policymakers, and other officials.

As part of a team you will partner with peers to produce of a wide variety of products, including complex intelligence analysis, training material, and other important pieces. Products are designed for conveyance via mobile devices, web, and print. All work is conducted in a team environment, with members focusing on one or more specialty, such as scripting, graphic design, cartography, 3D animation, motion graphics, illustration, and imagery. Applicants must work well in a team environment and be passionate about information design and technology (mobile and web). We are seeking junior and experienced designers and offer competitive pay.* Opportunities exist to participate in internal training as well as external workshops and conferences.

Our overarching unit, the Multimedia Production Group, has won awards externally and within the Intelligence Community for creating visually-engaging intelligence products. We have a very talented team of individuals who believe in collaboration and innovation and have a passion for design and technology.

Multimedia Intelligence Production

Minimum Requirements:

- Bachelor's degree in Interaction Design, Graphic Design, Fine Art, Cartography, GIS, Computer Science or related discipline with a strong emphasis on graphic, information, or user experience design.
- Ability to shape and lead solutions to data visualization in an increasingly complex and changing technological environment.
- Experience with the Adobe creative suite, HTML5, CSS3, Javascript, and version control applications.
- Applicants with a background in design must provide a strong creative portfolio demonstrating good use of typography, grid-based design, white space, and color theory.
- Applicants with a background in cartography/GIS should have experience with the ESRI GIS suite and familiarity with cartoCSS and Map tile

“Share to broadly, and people can die. Hold your information too closely, decisions can be ill-informed and people can die. Our responsibility is to share broadly and securily – to make certain that these two critical needs are not viewed on incompatible extremes. The truth of the intelligence business is that information sharing and information security need to co-exist.”

Geoffrey Fowler,
former editor of CIA World Intelligence Review (WIRe), 2015

Muito Obrigado!
Perguntas?

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