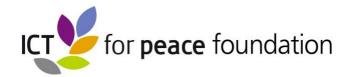


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Rapid capture of stakeholder interactions and interviews, November – December 2017

Sanjana Hattotuwa, ICT4Peace Foundation 14 December 2017

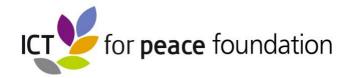
A historic, unique opportunity under the leadership of the incumbent UN SG and senior level staff to push forward the core tenets of the Crisis Information Management strategy, now deeply resonant with the essential elements of frontier issues, UN reform and IM writ large.

- Note by the SG dated 3 January 2017 titled 'Strengthened Information Management, Coordination and Crisis Management Arrangements' has galvanised the UN system around core tenets of CiM
- High level political buy in and leadership
- Anchored to UNOCC
- "I expect significantly improved information-sharing and collaborative interactions between information providers and analytical entities across the Secretariat, as well as enhanced collaboration with other equivalent United Nations entities, including but not limited to the UNICEF and WFP Operations Centres."
- Stakeholder interview: "CiM process was a precursor to what the SG has now mandated"

An emphasis on Artificial Intelligence (AI), Machine Learning (ML), predictive analytics / business intelligence (BI), and an interest in the Internet of Things (IoT) / sensor-based networks as key opportunities and threats to IM in particular, and the mandate of the UN in general.

- Predictive analytics around refugee movements pegged to weather and other factors
- Sensor based monitoring data for situational awareness in PKO operations
- Global Pulse work with agencies, in the field and with the UN Secretariat

A keen interest in leveraging open source data / dealing with social media, with attendant problems around veracity, verification, volume and vector(s). Dealing with misinformation and disinformation (so called 'fake news', though that's a contested term post-Trump), which has real world, serious and often violent consequences for UN operations (esp. in PKO) was repeatedly flagged.



Many working groups, inter-agency committees, formal and informal groups working around IM, including on technological issues related to sharing, governance and analytics.

- UNHCHR Working Group on Data Sharing including DPA, OCHA, OCC, UNHCR, UNDP, WFP, ILO, WHO, SBC, CAC, SVC, SR's Office for the Prevention of Genocide
- Focus on SOPs instead of crises all the time.
- Innovation groups at WFP, UNICEF, UNHCR, OCHA, Global Pulse
- ICTD: Eight working groups on tech including a collaboration with Global Pulse

At the Secretariat, a renewed realisation that situational awareness for SG is dependent on comprehensive information sharing and data mining - investments made in this regard around human and technical resources.

- Situational analysis capability could be an organising principle for entire organisation.
- Data commons, champions and community service as well as political directives to share information
- Matching demand and supply with data and technology

CiMAG's focus over 2013-2015 on big data has developed into an interest in how data can be best leveraged for timely and effective decision modelling and decision support architectures. An underlying interest in cybersecurity, which means many things, ranging from the security of key informants and infrastructure on the ground to more systemic, high level threats around misinformation, disinformation, bots, trolls, psychometric targeting and norms around cyberwar that impact UN operations.

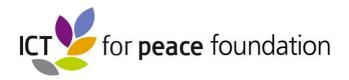
- Minecraft, Mirai and now Satori (As <u>Wired</u> reports, "researchers later determined that it infected nearly 65,000 devices in its first 20 hours, doubling in size every 76 minutes, and ultimately built a sustained strength of between 200,000 and 300,000 infections".)
- Protecting and defining critical infrastructure

An interest in data not as an end product, but as ingredient in supporting the end products of others. A shift in the way analysis is conducted for some, from generating it in-house to providing the data and tools by which others can do it themselves.

- Systemic agility: Need to redesign and rethink approaches mid-project
- Need for granular data from source, not top-level analysis / Analysis pushed to the edge or end user / Drilling down on analysis
- Importance of API and data standards over institutional architectures and investments
- Shift from 80% processing and 20% analysis to 20% processing and 80% analysis

Significant investments in inter and intra-agency dashboard, business analytics, incident monitoring and responses systems

- Light, simple, flexible solutions needed. Emphasis on Microsoft products like <u>MS Outlook</u>, <u>Sharepoint</u> and <u>Power BI</u> instead of dedicated, proprietary systems
- Cloud based architectures



- NICS from MIT-Lincoln Labs. OCHA initiative with BCG, MIT-LL and DFS.
- RightsView from Microsoft for UNHCHR
- Pushing to <u>HDX</u>
- DEEP by UNHCHR, piloted in Kenya for open source analysis.
- Forsight tool by Crimson Hexagon used by Global Pulse along with access to the Twitter firehose, telco data
- <u>Dataminr</u> by Global Pulse
- OICT's <u>Unite Ideas</u>
- Platform by Analytics, Business Intelligence and Reporting at UN Secretariat around election violence prediction.
- Self-service mapping platform by OICT
- Jetson Predictive Analytics Engine, used by UNHCR Innovation Service
- <u>Social Media Monitoring</u>, also by UNHCR Innovation Service in collaboration with Global Pulse

Improvements to the governance of data and a strategic shift in IM from control to management.

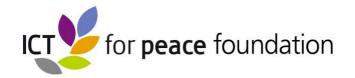
New found interest in use and analysis of satellite imagery analysis at inter-agency level, including the use of AI.

- UNDP and UNOSAT collaboration
- UNOSAT and UNOCC

Al in general, along with ML, finding its way into all aspects of UN mandate. Conversation on ethics, governance needed.

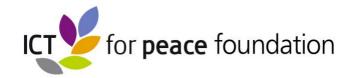
Challenges remain in a number of significant areas including staffing, inability of UN to attract and retain talented staff due to outmoded and outdated human resource policies. Human capacity constraints and core budgetary allocations were repeatedly mentioned as challenges in the more systemic implementation of CiM strategies across the UN. The CiMAG annual meeting was repeatedly flagged as the one time the UN family, talked amongst themselves and shared information around IM - and to this end, that awareness around key developments in CiM are uneven within the UN family.

- UN still intolerant of experimentation, not agile
- UN still top down and top heavy, not networked and flat(ter)
- Analysis, not data collection, is the bottleneck / actors want granular data
- Innovation is not the same as application / innovation islands / incorporation into institutional workflows
- UNOPS agreements for core staff requirements
- Talent required for crisis information management / situational analysis largely not available within the UN system, cannot easily be brought in
- Skills required going forward: data analysts, contextual analysts, analytical methodologies, data vis, infographics, mapping
- Need for clear roles and responsibilities, clear methodologies and coherent policies around sharing



ICT4Peace Foundation's (non-prescriptive, preliminary and exploratory) observations

- 1. Michael Møller, DG of the UN Office in Geneva notes that frontier issues are in fact front-door issues is the UN system thinking far ahead enough? What about Black Swan events (e.g. sun flare disrupts global internet services)
- 2. Detailed note to UNDP around satellite imagery advances and developments, including in imagery sources and crowd-based analysis are these models the UN can more systemically embrace (e.g. with the What 3 Words app)
- 3. Climate change and pandemics tectonic shifts in a short span of time. Is the system post-UNMEER better prepared for more complex natural or engineered large-scale disruptions?
- 4. Ethics around innovation, including in particular ML and AI driven decision-making what are the overarching considerations in pushing for AI within specific domains, if the template and technologies can without governance, be used for hate, hurt and harm?
- 5. Algorithmic oversight of AI to ensure rights and privacy aren't violent, on the lines of what NY City has done with new Task Force for Municipal Agencies.
 - How can people know whether or not they or their circumstances are being assessed algorithmically, and how should they be informed as to that process?
 - Does a given system disproportionately impact certain groups, such as the elderly, immigrants, the disabled, minorities, etc?
 - If so, what should be done on behalf of an affected group?
 - How does a given system function, both in terms of its technical details and in how the city applies it?
 - How should these systems and their training data be documented and archived?
- 6. Concerns around automated social media content analysis tools from the <u>Centre for Democracy and Technology</u>:
 - NLP processing tools perform best when they are trained and applied in specific domains and cannot necessarily be applied with the same reliability across different contexts.
 - Decisions based on automated social media content analysis risk further marginalising and disproportionately censoring groups that already face discrimination.
 - NLP tools require clear, consistent definitions of the type of speech to be identified; policy debates around.... social media mining tend to lack such precise definitions.
- 7. Post-truth world where images, video and audio that is doctored is (digitally and for human perception) indistinguishable from factually accurate content. (e.g. 'PhotoShop for Audio', Unsupervised Image-to-Image Translation Networks, and real time video manipulation)
- 8. Quantum computing never once came up in any of the stakeholder meetings. Already <u>SDKs</u> <u>available</u>. Catalysts for improving a chemical reaction can they be adapted to improve efficiencies and effectiveness of responses to complex problems?
- 9. Quantum computing and Al. Paradigmatic shift. Implications for encryption, ML, control architectures, media.
- 10. Net Neutrality what will a tiered Internet look like and cost, political implications for the UN? For IM?



Meeting to discuss preliminary findings | 14 December 2017, UN Secretariat, New York, 10.30am – 1.00pm

Chair: Sanjana Hattotuwa, ICT4Peace Foundation

Participants: OICT, UN CTED, DPKO, UNOCC, UNICEF, UNHCR

After a brief welcome by Daniel Stauffacher of ICT4Peace Foundation, who apologised for not being able to attend in person because of travel issues beyond his control, the Chair presented in detail the preliminary findings of face-to-face interviews and interactions with UN staff over the past three weeks, in from 27th-29th November New York and on 7th December Geneva. At the time of the meeting, <u>the online questionnaire</u> featured two responses. The essence of these two responses were also incorporated into the Chair's presentation.

The Chair, a day prior to the meeting, had prepared and sent to the group a four-page report capturing the essence of the interviews and interactions with UN staff, which also included one-page of issues the Foundation presented as 'frontier issues' including, but not limited to, the governance and ethics of artificial intelligence (AI), the challenges of verification and veracity in a post-truth world and the impact of quantum computing.

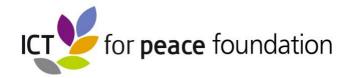
For the benefit of colleagues new to the discussion and process, the Chair's presentation, in addition to points noted in the background document, also captured the history of the CiM strategy (CiMS), the constitution of the CiM Advisory Group (CiMAG) and the evolution of the Foundation's work with the UN system around (crisis) information management (CiM) since 2008.

The meeting was held under the Chatham House Rule.

After the Chair's presentation, colleagues that though it is not possible to weed out duplication entirely, the context now both demanded and afforded the opportunity to move concretely towards common initiatives to, *inter alia*, leverage the strengths of agencies and departments within the UN system. The point was made that greater collaboration and coordination could happen whilst respecting individual mandates and institutional boundaries. Delivering better value and discovering collaborative architectures that weren't too cumbersome or burdensome were also flagged as requirements for the UN family to deliver better.

Regarding technologies like Natural Language Processing (NLP) and Machine Learning (ML), undergirded by Artificial Intelligence (AI), the point was made that they could strengthen capabilities of human analysis and help with better situational awareness.

Colleagues flagged the point that there is more information and data created today than has at any time in the past, leading to unique challenges around collection, verification and analysis



at all levels of the UN – from field operations to HQ. Underscoring a repeated complaint during the time the CiM process was active, colleagues said that a lot of information vital for analysis was locked in PDF form, which in turn meant that more time was spent getting information out of PDFs and into machine readable form than actual analysis. This in turn echoed interviews with colleagues who weren't present in the room and at the meeting around the need to move towards machine readable, open data standards and repositories, in addition to what exists in the UN today at present in this regard. This it was noted would allow for structured queries, better, more timely analysis, more granular records allowing for greater insight and accountability and better use of information already gathered for end-user products and output like infographics and data visualisation.

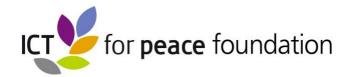
The use of drones around ground truth capture was noted at the meeting, in addition to satellite imagery. The relative merits of drone-based imagery was flagged at the meeting, including but not limited to better (or higher) resolution, greater control of image acquisition and ownership, and the ability to fly over areas that satellite imagery sometimes blocked out. The fact that drone-based imagery acquisition was also much cheaper than satellite based imagery was also flagged, for the domain of operations in certain contexts and countries. It was also noted there was an inter-agency group looking at drones and satellite imagery including WFP, UNHCR, UNICEF and OCHA.

Many around the table noted that the UN was moving more towards data analytics and the recognition of evidence based decision making and modelling. IM was at the heart and core of evidence gathering and analysis.

Participants flagged the importance of working with communities on the ground and being open and receptive to technological innovation that was organic and endogenous, which the UN could leverage to better support IM as well as response. In this light, some participants noted that within the UN family, it was important to bridge the field office and their operational realities and context to the HQ, and its need for timely, reliable information and sit-reps. Somewhat linked to this was the point made by a colleague at the table that an emergent challenge for situational awareness was the fact that key conversations and content were now moving away from the open, public social media platform and into encrypted, private groups based on instant messaging apps, which rendered them almost impossible to monitor, with attendant challenges around early warning and general operational security (op-sec) especially for PKO operations. Colleagues noted the wider challenge around how the UN could remain relevant if it didn't even know what was being planned, or going on.

To this end, colleagues flagged concerns around how disinformation and misinformation impacted the operations of the entire UN family, not just PKO. At the same time, colleagues said that social media today was central to the effective delivery of UN agency mandates, and supporting situational awareness.

Some colleagues noted the challenge of 'email tyranny' – that the greater the provisioning of communications platforms that connected the HQ to the field, the greater the challenge of responding to requests for information was, which impacted the ability at the field level to actually do the tasks required around IM, data collection and verification. Some said the most radical change around IM in some years was in the provisioning of a shared drive at mission



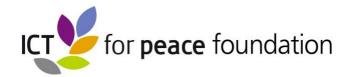
level, so that everyone could dump their data. There was also conversation around specific platforms in PKO like ITEM and SAGE (now rolled out to eleven missions), and their relative merits. Some colleagues noted that there were a lot of good tools, but no real awareness or use of them. As ever, colleagues noted that mapping what is available, for what and where could help in the greater use of tools for IM.

The greatest challenge, colleagues concurred, was around human resources at all levels of the UN. The capacities of the UN were out of sync with the demands placed on the UN family. Staff who were talented, especially around core IM competencies as well as emerging issues like ML, AI, NLP, visualisation and analysis, could not be brought in, retained, promoted or paid adequately. Colleagues averred that even Member States are ahead of the UN system when it came to staffing institutions dealing with information management and crises. In line with the background report that was pegged to the same frustration by every single other person the ICT4Peace Foundation spoke with in New York and Geneva, colleagues expressed very strongly and clearly their frustration with the *status quo* and how visibly incompatible it was with everything that was needed and identified in the domain of CiM.

One colleague came up with a novel idea to create a way through which Fellowships could be offered for young talent, keen to work with the UN, where they could be placed in strategic locations and posts where they were needed the most, supported by a structure which included private industry that supported their remuneration with little to no cost or burden to the UN system. This was offered as an alternative to the UNOPS recruitment which is now the only way through which this talent can be brought in (but not retained) at the UN. Not unlike the Presidential Innovation Fellows model, Peace Corps or similar programmes, talented individuals chosen by the UN family and supported fully during their sojourn at the UN by a vetted group of private sector entities, could bring in the human resources so desperately needed and at the same time by-passed the challenges around hiring, salary structures and other bureaucratic hurdles.

It was noted by the Foundation in this regard that OCHA's work with the crisismapping / <u>Digital Humanitarians</u> community could also serve as a useful template around how technical competencies that could never be fully realised within the UN could be leveraged from trusted, reliable partners outside, for both surge capacity as well as part of regular S.O.Ps and operations. In this regard, colleagues noted that there wasn't any 'centre of gravity' for IM within the UN system — no formal body that convenes stakeholders around IM on a regular basis, and could also act as the champion of needs and requirements to lobby senior leadership. Even though information sharing is now emphasised by political leadership, participants said it means different things to different people, agencies and processes — ranging from just better and more regular emails to comprehensive, collaborative and coordinated inter-agency structures. Participants noted that stronger, more structured guidance was needed from senior leadership.

Also in the meeting, colleagues flagged key challenges around outsourcing analysis (to commercial enterprises and third parties). Some, from the humanitarian domain, said that this was the only way complex challenges around response could be met today. Others, from the PKO and cybersecurity domains said that outsourcing analysis was not an option because of operational constraints and obvious concerns around security and confidentiality. Colleagues



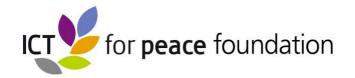
said that some UN entities had already entered into agreements with cloud service providers so that sensitive data would be only stored in jurisdictions that didn't easily or without strict, due process, open their data to the arbitrary scrutiny of intelligence services. This allowed the agencies to leverage the benefits of large cloud services, and at the same time to the extent possible secure sensitive information from third parties. Colleagues around the table concurred on the need for comprehensive, system-wide data governance frameworks and standards.

With regard to critical infrastructure at the UN, especially related to information management and situational awareness, colleagues noted that a conversation that had been active for a few years had identified key systems and measures were being taken for business continuity in light of a catastrophic failure or disaster in one or more key UN locations.

Somewhat linked to both points above was a brief discussion around the pros and cons of a UN cloud architecture (which featured in annual CiMAG retreats as well in the past). On the one hand, colleagues noted that it was important to be aware of and leverage existing, significant investments in Brindisi and elsewhere around the server infrastructure to provide cloud services to UN staff and also business continuity for core UN operations. It was noted that the UN Cloud provided greater security and confidentiality for information produced by the UN family, and especially PKO operations. On the other hand, colleagues noted that with comprehensive SLA's, commercial cloud service providers could also provide comparable security and confidentiality, and at the same time, and perhaps counter-intuitively, provide greater protection and security as a consequence of having far greater financial and technical resources as well as a much larger, global and high-value customer base. Some did however note the eye-watering costs associated with securing commercial cloud service providers, stressing the point that there was always a tension when working with the private sector – which operates primarily a profit motive – and the UN family, which operates fundamentally to save and protect lives.

Participants flagged that the governance and directives for greater collaboration and specific guidelines around IM needed to come from senior leadership, and the UN SG's office. Skilled, visionary leadership coupled with competent staffing, it was unequivocally noted, beyond technological advances and platforms, was the essential ingredient to push forward the UN to do better around IM. Many agreed that the UN culture itself needed to be changed, and other averred that the on-going systemic UN reform process was addressing just this point. Some said that instead of waiting for the ICT4Peace Foundation to bring stakeholders together, as was the case from 2008 to 2015, the UN family itself now needed to galvanise ways through which the same discussions could be held in a more sustained manner, avoiding the pitfalls of setting up even more working groups and collaborative structures that only or largely added to staff burden, delivering little to no value.

Finally, colleagues agreed to inform the Foundation on a suitable day in February 2018 for a longer, more in-depth meeting on CiM based on the final stocktaking report and its recommendations.



Online questionnaire – Topline Report

Sanjana Hattotuwa, ICT4Peace Foundation 20 February 2018

Introduction and caveats

Pursuant to and complementing the meetings with UN colleagues held over the last quarter of 2017, an online questionnaire was distributed amongst the Crisis Information Management Advisory Group (CiMAG) as well as others within the system. The questionnaire was kept open for responses from October 2017 to late January 2018. Read in tandem with the report submitted to and distributed amongst the CiMAG group in December - after in person, telephone and Skype based interviews with key stakeholders — the topline report of the questionnaire highlights some interesting aspects of crisis information management's state of play today. Finally, not all questions asked are reflected in the topline report, since some of them featured incomplete responses of just one or two answers.

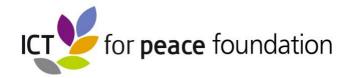
Observations

Asked to rate their satisfaction since 2015 around with the way the UN as a system handles information management during a crisis, respondents occupied a middle ground and flagged a degree or progress, noting that while things hadn't significantly improved, things hadn't gotten worse or remained exactly the same.

On a scale of one to five, with five as the highest level of satisfaction, respondents were asked to rate how well their own agency, department or UN body prioritised crisis information management. Two respondents recorded a score of 4 and one, recorded 5. Two responded with a score of 2. Since the survey was anonymised in order to ensure non-attribution and a greater degree of openness, it is not possible to disaggregate the responses by agency or department. The key take-away from this question is that there is, across the UN system, variance in how constituent agencies and departments prioritise, and by extension, invest in, crisis information management.

Asked if the current crisis information management work was funded through extra-budgetary funding or core / annual funding, the split was even – half the respondents said it was through extra-budgetary funding, and the others said it was through core or annual funding.

Participants were asked what the greatest opportunity to take forward the CiM strategy and process was at present. Artificial Intelligence (AI) and data analytics were mentioned, along with data interoperability with attendant investments in data privacy and data protection. Connected to this, respondents said it was important to agree to use common standards. Echoing what the Foundation was told in the last quarter of 2017, respondents also flagged



the on-going UN reform process, and the UN SG's interest in crisis information management, as a significant opportunity to take forward the work of this group.

Asked what the greatest challenge in taking forward the CiM strategy and process was, respondents flagged several points. Some of these were all too familiar to the Foundation, since they have flagged many times over the years the CiM process was actively working with the UN system, and even in the first stocktaking report, as far back as 2008.

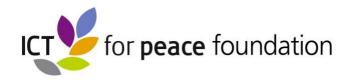
- Silos within the UN system, both within the Secretariat (vertical) and between the Secretariat and other agencies (horizontal). Connected to this, respondents flagged the energy expended on battling agencies for information, competing, complex and confusing mandates as well as personality driven information sharing subject to sudden revision and reversal if and when personnel changed.
- Coordination and collaboration, or lack thereof.
- Analysing ever increasing streams of data in a timely, efficient and effective manner. The bottleneck now is downstream analytics in contrast to, just a few years ago, the gathering of information.
- The lack of understanding within Senior Management around how information can be used in decision making, even when it is available, highlighting a gap between the open championing of data driven decision making and the actual strategic use of data in policymaking.

Asked to name instances where the CiMAG family worked collaboratively, Syria featured heavily. But there was also criticism that while the annual retreat and other meetings were good, there was little to nothing done afterwards to take action of what were identified as core needs, key challenges or verdant opportunities. One respondent averred that "ICT4Peace [Foundation] played a very valuable role in convening actors who were otherwise organisationally isolated to understand common purposes and challenges".

Respondents were asked how well clients were served, whether seniors received the information they needed and whether country sites/teams got what they needed, during a crisis. The fact that there was still no clear pattern or template for information flows during crisis was flagged, though overall, respondents said clients were served well.

Asked for examples, respondents flagged improved management of refugee camps, stronger and more objective analysis to Special Envoys and better Security Council resolution monitoring efforts.

Asked to flag unintended outcomes, respondents noted that it was increasingly hard to manage optics in light of a complex media landscape, with implications on information gathering and analysis. Others said that raising expectations around better IM had failed to result in the necessary investment in personnel, infrastructure, training and technology. CiM is everybody's baby, and yet also orphaned. Asked about ideas around what can be done to address this, better collaboration and coordination, stronger 'operational matchmaking' and more structured approaches to IM were flagged. Simulation exercises and regular stocktaking exercises — like the one conducted by the ICT4Peace Foundation — were also flagged as important.



Asked what they learnt from interventions in CiM, respondents said smaller projects often led to higher costs, and that larger, longer term, system-wide projects were preferable when dealing with IM and its incorporation at all levels of the UN. It was explicitly noted that the UN SG's backing and support by way of a vision statement was of pivotal importance in championing stronger IM within the UN. Along with this, some structure ('an internal centre for gravity') to anchor this vision to within the UN.

On the question of technologies for IM, respondents flagged the (enduring) importance of satellite imagery. Many also flagged, as 'frontier issues' or technologies,

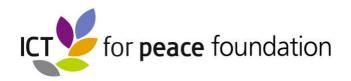
- Machine learning and big data analytics
- Space based technologies and GIS
- Natural Language Process, Al
- Drones
- Blockchain and identity management software
- Software for analysing unstructured and qualitative data
- Use of virtual and augmented reality

Finally, asked for what respondents themselves thought was of vital importance to the future of CiM, many said it was important to expand the network and focus on action or results oriented work. As one respondent averred,

A key priority which should always be at the forefront of these discussions, is how to ensure that the time and resources spent goes towards outcomes that are useful and actionable. They should also reflect not just future and forward-thinking approaches, but also realistic, grounded ways to improve information management in emergencies in contemporary and ongoing crises.

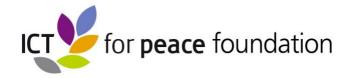
ICT4Peace Foundation's (non-prescriptive, non-exhaustive) points of interest

- 1. Conduct future scenario planning exercises to ascertain if the UN system is thinking far enough into the future. Extra-terrestrial, terrestrial, subterranean, oceanic, tectonic and technological Black Swan events to be embraced in these exercises. For example, a discussion around the end of Net Neutrality and what a tiered Internet will look like and cost, as well implications for the UN writ large and IM in particular.
- 2. Better management and use of what is present and known, instead of investments around gathering more, and indiscriminately.
- 3. Ethics around innovation, including in particular machine learning (ML) and AI driven decision-making what are the overarching considerations in pushing for AI within specific domains, if the template and technologies can without governance, be used for hate, hurt and harm? How can the UN emerge as a global ethics anchor in the AI space. What can the UN do to provide algorithmic oversight on ethical grounds, as well as ensuring rights and privacy of individuals aren't violated because of big data investments.
- 4. In a post-truth world where images, video and audio that is doctored is (digitally and for human perception) indistinguishable from factually accurate content. (e.g. 'Photoshop for



- <u>Audio'</u>, <u>Unsupervised Image-to-Image Translation Networks</u>, and <u>real time video manipulation</u>), how can the UN champion accurate, responsible and impartial sources of information and media for use in CiM (and beyond)?
- 5. How best to embrace quantum computing, which is not on the radar of anyone the Foundation spoke with. There are also <u>SDKs available</u> which can be leveraged for complex or wicked problems. Can current QC frameworks be adapted to improve efficiencies and effectiveness of responses to problems the UN system faces, including political and socioeconomic issues?

###



CiM Stocktaking Questionnaire

Live online from October 2017 to February 2018. Conducted using Google Forms. Responses collected anonymously *sans* any registration or collection of personal details.

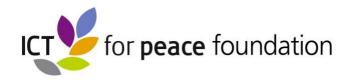
This questionnaire aims to get respondents, mostly from the Crisis Information Management Advisory Group (CiMAG) and other invited to its annual retreats from 2009 to 2015 to reflect on the CIM framework which had four major components: information architecture, technology development, stakeholder management, and capacity building. These pillars were supposed to influence governance, funding, evaluation and incrementalism in the crisis information management domain. The ICT4Peace Foundation believes that discernible progress was made on all of these things, but much more remains to be done. There are still silos and significant gaps between the humanitarian-development actors and the peace, human rights and security actors, which proves challenging when a joint response post-disaster is needed. The questionnaire aims to capture thoughts and ideas, which will feed into a final report for stakeholders that also incorporate feedback from face to face interviews and meetings.

YOU DON'T NEED TO ANSWER ALL THE ANSWERS. THERE ARE NO PERSONAL DETAILS RECORDED. The more questions you do answer, and the more in-depth you go, the more comprehensive our review and understanding will also be.

Needless to say, the ICT4Peace Foundation is extremely grateful for your participation and very thankful for the time you spend on this jointly developed questionnaire.

Possible reflection points

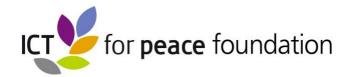
- UN coordination models vs. mission models
- Integration of IM and ICT capacities in larger mandate planning and strategic decision making
- For non-UN parties: Points of contact with the UN, perceptions of engagement, strategy
- Linkage of information to accountability models
- Simple ICT tools vs. complex systems
- Common ICT tools vs. practice-specific systems (CODs, Excel, HDX vs. Agency-specific system)
- The UN cluster system
- The role of the UN Operations and Crisis Center (UNOCC)
- The role of Member States / Host National Governments
- The functions of National Emergency Response Centres / national crisis capacities
- The role of INGOs/NGOs
- The role of grassroots volunteer groups
- Evolving role of IM standards and rapid exchange of information
- Senior management initiation of crisis response
- Flexibility of ICT planning and resourcing to engage in first 24-hour crisis response



- Internal information, possibly containing sensitive data, vs. sharable non-privacy-invading data
- Surveillance and aggregation of big data
- Innovative collection methods vs. ethical requirements
- Ethical responsibilities to crisis victims, governments, each other
- Bureaucratic stumbling blocks
- UN talent base and ability to hire quickly for new talent sets for crisis response
- Differences and similarities between humanitarian IM and peace and security IM programmes

Questions

- 1. Since 2015, rate your satisfaction with the way the UN as a system / whole handles information management during a crisis?
- 2. Since 2015, rate your satisfaction on how your own agency, department or UN body has prioritised crisis information management?
- 3. Is your current crisis information management work funding through extra-budgetary funding or core / annual funding?
- 4. What's the greatest opportunity to take forward the CiM strategy / process, as you see it?
- 5. What's the greatest challenge in taking forward the CiM strategy / process, as you see it?
- 6. Narrow into a specific response in the past 5 years where all CiMAG group members participated to an extent: Were the (crisis) IM goals attained? If so, to what extent?
- 7. How well were clients served? Did seniors receive the information they needed? Did Country sites/teams get what they needed?
- 8. What went well? Provide examples of successes that happened during or because of the intervention.
- 9. What didn't go well? Discuss unintended outcomes that happened during or because of the intervention.
- 10. What might have been better handled if done differently?
- 11. What recommendations would you give to others who might be involved in future interventions of a similar type?
- 12. What was beyond your control?
- 13. What things surprised you on the intervention that were not planned?
- 14. What changes to scope, to costs, to resources, and/or to the schedule occurred during the intervention? What did you learn from this?
- 15. How were risks in your intervention identified, communicated, and resolved?
- 16. Are there things about the technology, the organization (how we work), the interevention etc., that others might benefit from knowing?
- 17. What technologies were used the most? Why and how?
- 18. What technologies or tools are on the horizon that in your mind will impact and influence CiM to the greatest degree?
- 19. Anything you want to say we've not captured but is important to the future of the CiM strategy / CiMAG?



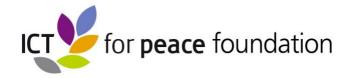
agenda

ICT4Peace & UN Crisis Information Management Advisory Group, Stocktaking Exercise 2018

26 February 2018 CR-B on the 7th floor, UN Secretariat, New York 9am – 1.30pm

Closed door meeting under Chatham House rule to discuss crisis information management stocktaking report and key findings, supporting the UN Secretary-General's note of 3 January 2017 on Strengthened Information Management, Coordination and Crisis Management Arrangements.

Time	Description
9.00 – 9.15am	Welcome address by Dr. Daniel Stauffacher, President, ICT4Peace Foundation
9.15 – 9.30am	Welcome address by ASG Fabrizio Hochschild
9.30 – 10.15am	Presentation of stocktaking report and key recommendations by Sanjana Hattotuwa, Special Advisor, ICT4Peace Foundation
10.15 – 11.30am	Presentations on present state of play (around CiM) by UN family including specific issues and projects not covered in the stocktaking exercise
11.30 – 11.45am	Coffee / Tea break
11.45 – 12.30pm	Discussion on the stocktaking report and recommendations, moderated by Christina Goodness, Chief, Peacekeeping Information Management Unit, Office of the Chief of Staff, Departments of Peacekeeping Operations and Field Support
12.30 – 1.30pm	Discussion on next steps and firm commitments, moderated by Robert Kirkpatrick, Director, UN GlobalPulse



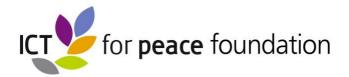
Note to ASG Fabrizio Hochschild after CiMAG meeting

Drafted by Christina Goodness, Chief, Peacekeeping Information Management Unit, Office of the Chief of Staff, Departments of Peacekeeping Operations and Field Support and Sanjana Hattotuwa, ICT4Peace Foundation.

26 February 2018

A directive sent to the UN system, linked to the prior of January 2017, on the next steps for strengthening IM (or a series of directives)

- States that improved CIM is critical to the SG to do his job. Improving this area will help to answer Member States when they ask for evidence of effectiveness. The Organization must take information-based decisions, respond in targeted ways in the field, and better communicate to Member States and affected communities. CIM helps us get there.
- Acknowledges the SG and seniors are pivotal to a better information environment. He will champion an IM change agenda regularly articulate of key information requirements and ask that all USGs, SRSGs, ASGs, CT Leaders, etc do the same.
- Establishes clear guidelines to Departments and AFPs on collaborative information sharing with UNOCC, that will enrich information flow to the EOSG. This will in turn enhance and strengthen UNOCC Daily, EC/DC visuals and narratives, and the informal briefings to the Security Council and other products across agencies.
- Emphasizes that IM requires inter-departmental/agency collaboration and will likely require changes in reporting and analysis in particular (tbd).
- A description of an operational model: a permanent multi-disciplinary group (programmatic experts, Analysts, IM, IT) drawn from existing staff at multiple level who will: 1) focus on one or more outputs/products for the EOSG directly (e.g., Weekly SC Report), 2) Increase joint initiatives throughout the system (e.g., Situational Awareness Programme), and 3) advise on frontier technologies, emergent needs and ethical and human rights implications of this change programme
- A first set of possible topics for the reports/products: specific SDGs of critical importance to ESOG now, Operational Risk and early warning, Water issues and climate change, Migration, Protection of civilians, Women's empowerment.
- Address the below pain points which could negatively impact success if left unaddressed.



Asks for leadership on the resolution of systemic pain points: The following issues need further creativity and collaboration to resolve

- Human Resources to utilize skills we have and rapidly recruit critical new skills.
- Introduce and integrate CIM into core (operational/regular) budgets at the UN including peacekeeping mission budgets, special political mission budgets and programme budgets.
- Alternate funding models, now that funding is fluctuating, SA and RB are reducing.
- A range of technical IM issues (e.g., interoperability of systems, baseline data exchange, the location of data analysis in field or HQ, attribution and validation, transparency and declassification, access and security, obligation to push reporting and analysis back down to the tactical/field level).