



F11 Forensic Science and Justice Integration — The Brazilian Experience: People and Systems Working Together for a Better Criminal Prosecution

Marcia Aiko Tsunoda, Msc, Departamento De Policia Federal, Sais Quadra 7 - Lote 23 - Setor Policial Sul, Instituto Nacional De Criminalistica, Brasilia, Distrito Federal 70610902, BRAZIL; and Jairo G. Schafer, MSc*, Justiça Federal, Rua Paschoal Apóstolo Pitsica, 4810, Florianópolis 88025-255, BRAZIL*

After attending this presentation, attendees will better understand a novel way of improving forensic science by analyzing the effectiveness of material evidence found by forensic scientists from the perspective of the final clients, the judges.

This presentation will impact the forensic science community by presenting the Brazilian experience of electronically integrating different criminal prosecution entities — an area with very little prior research in Brazil.

One can list many different ways to improve forensic science. New research, technologies, and methodologies are developed every day to address the challenges of reconstructing crime dynamics from different types of trace evidences left at crime scenes. New and improved equipment emerges to enable faster and more precise examinations; however, in this presentation, another way of improving forensic science will be addressed: improving the effectiveness of the material evidence found by forensic scientists based on feedback from the judicial system.

Since 2012, many workshops have been presented by Brazil's federal justice system in partnership with the federal forensic science body of the Brazilian Federal Police.¹ In these workshops, judges visit different forensic laboratories and engage in a question-and-answer session about the way forensic examinations are performed, scientific curiosities, and myths. The clarity and effectiveness of the forensic science report are usually discussed and many improvement possibilities emerge from such workshops.

Among all the cooperation initiatives that emerged from these events between forensic scientists and judges, the most successful was the computerized systems integration. In the federal justice's fourth region, there is a computerized system that manages all processes under their responsibility. On federal forensic scientists side, there is a national computerized system that manages all forensic reports and trace evidence chain of custody-related information. The integration between those systems allowed forensic scientists to understand how the forensic reports were being understood and utilized by judges by having direct access to the judgment, understanding what type of references are made in their forensic reports, then finding ways to improve the language, clarity, and precision of the reports.

The initial analysis of this system integration shows the importance of forensic science reports in forming the judges' convictions in the decision-making process. Some statistics from a one-by-one analysis are detailed here.

A detailed analysis was performed and statistics were collected from all environmental crimes judged in the years 2011 and 2012 for three Brazilian states. From 493 total reports, 149 were inserted in a formal criminal proceeding in the justice's system. In 115 of these 149 (77%), the forensic report's information was explicitly mentioned by the judges in their decisions. In 27 of these reports, the crime was defunct due to time elapsed or had been transferred from federal to state level. In six cases, the information was partially used by the judges and in only one case was the report of no help — the case was an oil spill that occurred at sea and the forensic scientists couldn't make a timely examination to ascertain the consequences.

This study also encompass the analysis of the impact of forensic science reports on counterfeit money, counterfeit documents, and handwriting-related crimes for the year 2011 in one Brazilian state. From a total of 520 forensic reports, 191 were inserted into formal criminal proceedings in the justice system. In 165 of these 191 reports (approximately 86%), the forensic report's information was explicitly mentioned by judges in their decisions. In 24, the crime was filed or had been transferred to the state's competence. In one case, the information was partially used by the judge and in one other case the report wasn't of any help.

Many forensic improvement projects started based on this feedback, breaking paradigms on how forensic scientists and judges can interact. Now, the procedures and recommendations regarding evidence examinations and reports can be upgraded based on the end user perspective. The feedback must be used as a mechanism for improving the organization.² For judges, as soon as the forensic reports are digitally signed, it will be possible to use the facilities of digital editing, allowing them, for instance, to use images, copy and paste functionality, and search for specific keywords. It is also important to note the increased speed in processing documents and the significant savings in mail and paper costs.

In conclusion, this case study demonstrates that, despite all the technology involved in forensic science dynamics, bringing together professionals who work for the same goal is an excellent way to optimize and improve results. Integrating people and systems proved to be a synergetic project that delivered surer justice to citizens.

Copyright 2016 by the AAFS. Unless stated otherwise, noncommercial *photocopying* of editorial published in this periodical is permitted by AAFS. Permission to reprint, publish, or otherwise reproduce such material in any form other than photocopying must be obtained by AAFS.



Jurisprudence Section - 2016

Reference(s):

1. Braga M. Corregedora defende maior diálogo entre magistrados e peritos federais. Agência CNJ de Notícias. (Brasília, DF) 28 de agosto de 2012. In: <http://www.cnj.jus.br/noticias/cnj/59098-corregedora-defende-maior-dialogo-entre-magistrados-e-peritos-federais>
 2. Möller C., Barros J. Reclamação de cliente? Não tem melhor presente: Usando feedback do cliente como uma ferramenta estratégica. São Paulo: *Futura*, 1999, p. 102.
-

Integration With Justice, Computer System Integration, Feedback