Using our Illuminate Service to protect your staff from social media harm

The problem	Threats to individuals or groups of your staff via social media
Social media is a powerful force and can impact your staff safety	The way we communicate has changed dramatically in recent years and Internet 'chat' now dominates many people's interest both at, and outside work. Unfortunately cyber-gossip and more extreme forms of cyber-stalking can significantly impact your staff welfare and pose a real threat to their personal safety and security.
Anyone can find themselves in the public eye via social media	Celebrities who live their lives in the public eye are used to public commentary on their activities, and have developed strategies to manage it, but most business people have no such experience and are unaware of the risks of unwanted interest in them by people that they may not know.
Social media acts like an accelerant on a fire, freeing people to say things to strangers that they would never dare to say if they met them	*Trolling* has become an established term for people who sow and promote discord on the internet by starting and fuelling arguments.
	This type of behaviour can be the precursor to even more serious threats, so identifying it early on can enable action which prevents those threats from subsequently materialising.
	Over the past years, following the introduction of our service, we have identified numerous examples of social media postings related to our clients' staff that started out seemingly benign and complimentary but subsequently degraded in something more sinister.
	Unfortunately trolling is not limited to single individuals and we have seen many instances of groups with shared malicious intent.
Groups with shared 'interests' form and storm quickly	When conversations *trend* on social media there is a tendency for ad-hoc groups of individuals with shared interests to form and storm in a matter of minutes. The connections made in these groups can be transient but more often than not result in individuals remaining 'followers' for some considerable time.
Chat can develop into direct action at key business or personal events	We have seen chat develop into direct action from the simplest of unwanted attention where individuals started receiving birthday greetings at their home address to planning to use physical threats of violence towards key executives at a company Annual General Meeting.
Our response	Countermeasures
	Primary Key Illuminate is a managed service investigation tool that we task to identify threats to your company and your key staff in particular.
	Our acquisition engines intelligently sift social media, web pages, the dark web, forums, email honey traps, and structured data, looking for matters of direct interest to the wellbeing of your key staff. Working alongside you we define, actively monitor, and maintain those interests. On occasions, the system itself will suggest other interests.

*Evidential quality data kept under our control*

We acquire the data evidentially from multiple sites, and store them securely replicated on our own infrastructure.

We provide you with cost – effective Answer Focused Analytics

Our analytic engines use advanced algorithms[1] to identify, prioritise, and summarise key information. We show you the results in ways that are directly actionable by your own in-house teams, or are of direct use in management reporting, hiding the complexity of the underlying analytics. We maintain a road-map of additional analytics that we share and prioritise with our clients.

Since we directly address your business problem – rather than provide complicated tools which must be interpreted by an intervening layer of analysts - our clients find that using our service saves staff time.

We acquire and process data evidentially
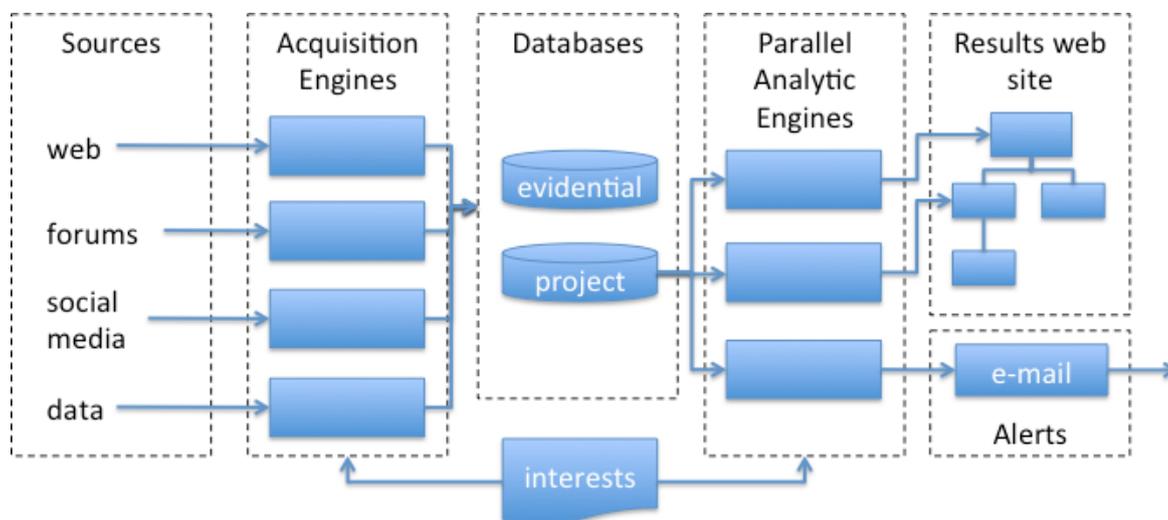
We deliver results online via a protected web site

We provide the results to you every day, via your own access controlled and traffic encrypted web site. There is no software to install on your corporate systems and minimal impact on your IT department, so we can tailor the service as new requirements emerge.

We can provide email alerting of fast changing "pre-trending" situations

Where you are concerned about, for example, disruption to a key business event such as a product launch, trade fair or Annual General Meeting, our email alerting service will provide you with early indications of fast changing situations where you may need to react quickly.

---

[1] we use predictive analytics, supervised and unsupervised learning, natural language processing, parallel processing with distributed analytics (on clusters of virtual machines hosted on our own premises), and heuristics to perform very complex calculations but at high speed.

Our approach to social media analytics

Social media is chaotic, but businesses need to understand the underlying structure.

Social media, coming from a wide variety of sources, is inherently chaotic. To impose order, we use three key paradigms, which we developed from years of data mining and visualisation experience. By doing so, we can group both questions and answers into comprehensible and easy to navigate sections. The paradigms are:-

- Answer based analytics
- The Primary Key Principle
- The Primary Key Social Analytics Seven Layer Model

Answer Based Analytics

Our analytics produce directly actionable results

Many tools present an attractive rendition of social data, but still beg the question, what does this mean to the business? This question then has to be answered by analysts before feeding up to business leaders.

Our systems produce results which are immediately actionable, because they directly address business questions, supported with evidence. To know which questions to answer we work with clients to identify their interests, and the analytics which produce the answers they need. (If we have no such analytic, we develop one in short order).

The Primary Key Principle

Options produce complexity

Many systems give end-users multiple options to set which has several disadvantages:

- Different users with different settings, get different results, causing confusion
- Users want to get their job done, rather than be experts in complex software
- The end-user is often the person least qualified to know what settings should apply (especially when the developer could not decide what they should be)

The Primary Key principle is to keep it simple, so it just works

The Primary Key Principle is to remove unnecessary complexity and extraneous settings from users so that we provide them with focused, relevant, concise results that enable them to do their job better.

The Primary Key Seven Layer Model of Social Analytics

Structure from chaos via 7 layers

We think about social analytics in terms of 7 layers of actors and publications:

- Population – focuses on the overall ebb and flow of ideas
- Groups – groups of actors with similar interests
- Communities – actors who share interests, and are associated in communities
- Actors – individual people, companies, web sites
- Publications – individual publications, such as tweets or web pages
- Cleaned data – identified publications, rendered in a common way
- Raw data – the raw data acquired by the acquisition engines

About us

Since 2010 Primary Key Associates has delivered world-class consultancy, developing and exploiting cutting-edge analytics, artificial intelligence and digital investigation technologies.

Answer-Focused Technologies

We re-invest much of our revenue to develop cutting-edge data analytics, investigation and artificial intelligence technology to address the business problems we see our clients facing. Our IPR portfolio includes:

- Primary Key **Scenario Analytics** – a fast, modern and flexible data analytics technology to find, explain and illustrate the 'unknown knowns' in your large datasets.
- Primary Key **Insight Engine** – Scenario Analytics combined with powerful entity and relationship extraction, applied to digital forensics that reveals previously unknown connections in evidence.
- Primary Key **Illuminate** – a social media analysis and intelligence technology and service to find and analyse open source data to address particular business problems.
- Primary Key **Incipients** – predictive analytics that identify what is going to trend.
- Primary Key **Distil** – a technology toolkit we deploy on client sites to both find frauds and identify the business practices that make you vulnerable to fraud.
- **Fast analytic heuristics** to overcome the bottleneck of solving intrinsically non-parallel, yet vital, problems.

Expert consultancy and services

Our team are experienced professionals in IT and related areas:

- As experts in enterprise and security architectures (including SABSA), information security and cryptography we help design, validate, and test systems which are secure both physically and in cyber-space.
- We build software systems from the smallest (in C and assembler coded microcontrollers) through the mobile (Java or Swift coded Android or IoS apps), to the ubiquitous (Python or C+ on PCs, web technologies and virtualised servers) and even the esoteric (real-time and spacecraft).
- We understand data (SQL and graph databases) and artificial intelligence (computational linguistics, image analysis and machine learning) and have fast algorithms for timely and secure analysis of big datasets and evidential analysis of social media.
- We provide cyber threat intelligence and competitive intelligence.
- We support civil and criminal digital investigations from open source research through digital forensic analysis and providing expert witness reports and testimony.
- We undertake both technical and business programme and project management.

e: feedback@primarykey.co.uk
w: www.primarykey.co.uk
t: +44 1403 599900

@pkaluk