**Children with Special Educational Needs & Disability (SEND)
Using Analytics & AI to Produce Better EHCPs**

Alpha Phase Closing Workshop, 17 May 2019 – notes

Social Kemistri, on behalf of LB Ealing, Suffolk and Staffs CC, hosted a workshop attended by SEND service leaders, educational psychologists, developers and third sector groups to share our experiences, observations, learnings, and seek feedback on the Local Digital Alpha: using AI and analytics to produce better EHCPs (Education, Health and Care Plans for children and young people with special educational needs).

The invitation to the workshop, including background information, is attached at Appendix 1. The main points discussed are shown below:

Clarify savings and whether cost benefit analysis or process optimisation. Are the 25% savings proposed across the board for all staff?	Savings quoted are gross, based on person costs and exclude other costs. Cashable and non-cashable savings (e.g. spending more time with parents/ young people). See separate value model and commentary for detail. Net savings would depend on commercial model and would be refined during the Beta.
How do you embed tech into your local processes e.g. school feedback	This has been a long-standing issue for SEND authorities. Current arrangements are often quite basic. There are data security issues and huge culture change issues which would need

Comment re GDPR issues – DFE say OK to share if parent's have given permission but some LAs still wary.	to be addressed. We would consider in Beta - proposal includes a specialist on data security/ governance and a full change management system.
Benchmarking tool only covers performance time – doesn't show staffing levels/ caseloads. What about finance data/ placement costs? Comment about lack of LA control over other inputs e.g. health performance.	Agreed – resourcing info is not readily available nationally. Benchmarking tool is based on SEN2 data.
Does the source material still exist – will be required for tribunal etc?	Yes – stored in existing data system
Quality issues: - How can you measure quality of input - How can you promote better quality reports	Systemic and culture change work would happen alongside a Beta – needs a commitment to bigger transformation. Can improve quality of plan by ensuring accuracy of data input, standardisation etc. Can address the gap between EHCCO summary and original advice.
Would like to see a comparison between the EHCP produced by the tool and by a co-ordinator to prove the quality. Needs to be at least as good as a person, every time. Would need many more cases too.	This is a 12-week Alpha – the framework. Beta is about testing this further – defining good, proving the technology and value. Would be able to dual run human and machine reading.
How much would a parent's input be taken into account?	Parent/ user input into draft EHCP - after personalisation by Ed Psych - and around placement. More of a validation but Beta would develop this. Good to get input from placement teams too.
Will schools be able to access this?	Would be ideal - depends on partner orgs.
Where does the IP lie?	It's all in the open at this stage. When mature - need to consider with LDF for Beta stage.
Timescales / next steps	LDF considering next round of applications. Summer 2019 round with awards in September (provisional estimate)
MHCLG continued involvement	Year 1 but hoping to get other depts involved – e.g. DFE, Health.

Appendix 1

**Children with Special Educational Needs & Disability (SEND)
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**Join the conversation on
SEND transformation**

**FREE workshops for Service
Leaders, Commissioners,
Developers / Technolgists**

Friday 17 May, Kings Cross

**To share our experiences, observations, learnings, and seek feedback on
this exciting Local Digital project**

Venue: WeWork, Room 7G, Kings Place, 90 York Way London N1 9AG

Session 1 – The Power of Data & Design   (10:00 - 11:30)

How data analtyics, AI technology and design thinking can be used to unlock the potential for
breakthrough improvements in SEND service value and efficacy.

This session will work for policy makers, service leaders, business transformation and development
specialists, and others who want to know more about the value and impact of rapid prototyping,
data and design thinking in driving high impact change.

Session 2 – Applied Data Science for Service Innovation   (12:30 - 14:00)

Focus on the importance of data driven change. We will talk through the methods and techniques
used to make sense of complex EHCP data sets. We will show how these insights can be applied using
low cost, open source technologies to deliver high value applications.

This session works best for those wanting to know more about evidence-based change. It will
especially appeal to data/financial analysts, heads of service with a technical or maths background. It
will prove valuable and interesting for people involved in IT or systems analysts.

**Each session will include a short demonstration of the Digital EHCP application and SEN Benchmarking
Tool. There will be ample time for questions, answers, and further discussion.**
For further information: Tom Penney tom@socialkemistri.com
To reserve a space please contact: Jane Fernley fernleyj@ealing.gov.uk

The back story

1. In July 2018 Ealing Council commissioned [Rainmaker Solutions](#) to carry out research into the SEND service - from the initial request for a statutory assessment to the completion of an EHCP (Education Health and Care Plan). The extensive research with parents, schools, staff and professionals resulted in recommendations for process and system improvements.

2. Following a successful bid to the MHCLG's Local Digital fund, Ealing Council (with partners Suffolk and Staffordshire County Councils) commissioned Social Kemistri to investigate how analytics and artificial intelligence can improve EHCPs – to redesign the process to make it more customer-centric, simpler, faster and more cost effective.

3. An Alpha (prototype) system was produced, delivering faster, more effective needs' assessments for children and young people living with a special educational need or disability. **View the digital EHCP now** https://socialkemistri.shinyapps.io/digitalehcp/

4. As a by-product of the project we have brought together national data sets showing SEN data into **a simple dashboard covering SEN2 data for all local authorities. Available now** at https://algospark.shinyapps.io/SENS2/

5. [Local Digital](#) is a growing community of organisations working together with a shared vision to deliver more user-centred, cost-effective local public services through open, collaborative and reusable work; it is supported by the Ministry of Housing, Communities and Local Government (MHCLG).

6. In the spirit of open working and collaboration we are making the SEN2 benchmarking tool available for open access. Our user research, proposed solution and potential for development of a 'beta' project, including cost savings, will be published on [Local Digital](#) after 21 May 2019.

Workshop detail

Session 1 – The Power of Data & Design   (10:00 - 11:30)

- What is an Alpha
- The discovery
- Special educational needs
- Feedback & quality
- Prototype functionality
- Value modelling
- Beta development plan

7. In this session we will describe how data analtyics, AI technology and design thinking can be fused together to unlock the potential for breakthrough improvements in service value and efficacy.

8. This session will work for policy makers, service leaders, business transformation and development specialists and others who want to know more about the value and impact of rapid prototyping, data and design thinking in driving high impact change.

Session 2 – Applied Data Science for Service Innovation   (12:30 - 14:00)

- Data analytics approach
- Opportunity gap and value mapping
- Algorithm development
- Fast prototyping & prototype walk through
- Data architecture & technology
- Roadmap & future development

9. In this session we will talk about the importance of data driven change. We will talk through the methods and techniques used by data scientists to make sense of complex data sets. We will also show how these insights can be applied using low cost, open source technologies to deliver high value applications.

10. This session works best for those wanting to know more about evidence-based change. It will especially appeal to data/financial analysts, heads of service with a technical or maths background. It will also prove valuable and interesting for people involved in IT or systems analysts.

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