AI Concerns for Personal Freedoms and Government Misuse Darren Byler Ph.D. Simon Fraser University



- Draws on 26 months of field research in Xinjiang and Kazakhstan
- Interviews with 15 former detainees
- ~50 family members of detainees (many of whom fled the region in past 5 years)
- 15 camp/prison/surveillance workers and
- 100,000s of internal police files from state contractor Landasoft ("China's Palantir")
- 1000s of opensource government and industry documents







"The Phone Disaster"







Photo by Nicola Zolin



Actors in the Digital Enclosure

- State security, private industry: supported by (1) 60,000 "grid workers" (2) ~30,000 regular police (3) Civil Affairs Ministry personnel + 1.1 mil. "volunteers"
- Initial goal: break autonomy of the Uyghur internet -> predictive policing enclosure
- Now 1400 private tech firms
- Examples:
 - Al-enabled auto transcription, translation, assessment of Uyghur speech (iFlytek)
 - Auto detection of Uyghur/Kazakh faces in surveillance video (HikVision; Yitu; Sensetime;



In the spring of 2017 the state workers began to rank Uyghurs and other Turkic Muslims using categories of extremism or "pre-criminal" behavior.

-]. Between Ages of 15 and 55
- 2. Ethnic Uyghur
- 3. Unemployed
- 4. Possesses Passport
- 5. Prays Daily
- 6. Possesses Religious Knowledge
- 7. Visited one of 26 Banned Countries
- 8. Belated Return to China
- 9. Has Association with Foreign Country
- **10. Children Who Are Homeschooled**

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家庭住址	1.3	数 姓名	年龄	年龄段 (15-25岁 、26-40岁 、41- 55岁)	维吾尔族	无业人员	持有护照	每日 礼拜	有宗教学识	去过 26国	逾期 入境 人员	外关	辍学	总分数	放心	一般	不放心
-12 19-3-10	1	依不拉音·司马义	85		-10		-10	~10	-10	-10			10	50		*	-
	2	依米提・阿吾提	59		-10									90	N		
	3	肉先占丽·肉孜尼牙孜	56		-10							1	(1)	90	V		
17-1-102	4	阿衣占丽·依米提	35	-10	-10									80	*		
	5	阿孜古丽·依米提	28	-10	-10	1						COUCH NO		80	*	- 3	-
	6	古丽妮格尔・西尔艾力	11		-10									90	1		
	7	艾麦提・赛麦提	63		-10									90	N	1	
\$20-3-302	8 2	米那娃尔・阿不都热依木	59		-10									90	N		
	9	米赛尔・艾买提	29	-10	-10	-10								70		1	
in the set	10	依不拉音・克依木	51	-10	~10									80	~		
	1	白地努尔·艾含买提	45	-10	-10									80	×		
7-3-601	2	苏比依·依不拉音	13		-10									90	~		
1	3	苏必努尔·依不拉音	18	-10	-10									80	~		





近年来,出现部分人员跨区、跨境勾连情况日益突出,网上下载、传播暴恐者视频,使用及时通讯工具及敏感软件境内外通联,为内地维稳工作留下了重大风险隐患。为此,我公司根据公安 需求,量身研制XDH-1900B警用手机信息采集与查编系统,用于开展调查、取证、甄别、查处工作。根据公安干警的实际需求,多次改版完成定型,符合公安干警在实际工作中的使用需求。XDH-1900B 警用手机信息采集与查编系统是该我公司充分了解公安民警需求而定制研发生产高科技产品,专门为基层执法部门开发的手持终端手机采集设备。该产品搭载坚固型硬件平台,整合手机 数据采集和暴恐信息查编功能于一体,软件包括两大系统:一是手机数据采集系统,能够采集包括电话簿、短信、通话记录和常用应用软件(如QQ、微信、微博)等手机上的信息,能够在现场 方便快捷地对手机数据进行全面采集,为后续数据分析提供数据保障;二是反恐利剑·暴恐者视频图片电子书查续工具,可针对手机和USB存储介质上的暴恐者视频图片电子数据文件进行查线欢 迎各局使用。

案列:新疆麦盖提县公安局, 稻城县公安局, 雅安市芦山县公安局, 壹关县公安局, 萍乡市公安局…………

Data assessment tool from Shenzhen Xianchuang Digital Technology Co., Ltd. This device, along with similar devices that used digital forensics software that companies like Meiya Pico adapted from Israeli Cellebrite systems, is widely used in the Uyghur and Kazakh regions by policing contractors.

Selected Signs of Turkic Muslim Extremist Thoughts (from official list of 75)

- Abstaining from alcohol
- Abstaining from cigarettes
- Telling others to maintain halal standards
- Telling others not to swear
- Inviting more than 5 people to your house without registering with the police department
- Wearing a hijab (if you are under 55)
- Having a beard while under the age of 55
- Going to a mosque regularly
- Praying at home or in prayer rooms
- Fasting



A close-up look at the construction



Workers waik along the perimeter fence at Dabancheng Reft). Signs at the entrance to the camp remind workers about building safety requirements.

Over 300 camps documented. As many as 1.5 million held.

System of "Smart" Camps

- "Zero blank spots"
- Motion/face recognition cameras
- Distance learning
- Fortified classrooms
- Non-lethal weapons
- Severe overcrowding/lack of hygiene
- Use of shackles and blindfolds
- Lack of healthcare
- Sexual violence















Image of Uyghur detainee factory workers in an "industrial park" near Kashgar in 2018, China News Network.

KOHĽS







Croft&Barrow.





Gulzira Auelkhan: "guilty" of watching Turkish TV and travel to Kazakhstan



Coerced minority laborers at a new Jiangsu-funded industrial park in Ghulja.



General Manager Wang Xinghua of the Hebei-based parent company Luye Shuozi Island Trading Company. Cut monthly salary of interned workers to 300 yuan (\$50) and \$.014 per pair of gloves. Generated more than \$6 million in sales in 2018.

Gulzira (now in KZ) told me there were checkpoints at the entrance of the walled off dormitory and factory where her ID and face were scanned. She said: "We would have our bodies and phones checked when we arrived, and in the middle of the day. When we were leaving for the dormitory at the end of the day they would check again, because they were worried we might take a [sewing] needle. After we got to know [the police contractors] we asked them, "why are you still here watching us? They just laughed, never replied." The answer to this question was that the security workers were monitoring whether or not they were acting like submissive "reeducated" industrial workers.

Another former "reeducated" worker named Erbakyt told me, "We just had to smile and say yes, yes. We were like pets."



Promotional image of a Ürümchi checkpoint Safeway System, Shenzhen Tianhe Times Electronic Equipment Co., Ltd.



人员定位 Personnel positioning



三维地图 3-D map



轨迹回放 Tracking playback

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以人找房,以房找人 Find person by household, find household by person

AI Growth Industry



- Over \$100 Billion invested in infrastructure in Xinjiang alone
- \$150 Billion investment in Al research by 2030. Most in "National Champions":
 - Face++
 - SenseTime
 - Meiya Pico
 - HikVision
 - Dahua
 - Huawei
- Al projected to bring \$7 trillion to China's GDP by 2030
- Within 2 years of state security

FIGURE 2: PRESENCE OF CHINESE SURVEILLANCE & PUBLIC SECURITY TECHNOLOGY PLATFORMS (2008-2019)¹²



MAP 1 Al Surveillance Technology Origin



Map by Steven Fieldstein



 New report regarding the purchase and/or use of Dahua and Hikvision city-level surveillance systems in Mexican border cities in the states of Chihuahua, Coahuila, Baja California, and Nuevo León

Implications



- Public-private tech builds matrix of assessment, removal, control
- Public-private manufacturers uses matrix to hold targeted populations in place
- Produces a class of unfree workers in a "reeducation labor regime"
- For now, system requires an army of coerced "gridworkers," checkpoints, camps
- Behind & in Front of Xinjiang Stands Seattle
 - Megvii + Microsoft Research Asia + University of Washington

megvii RESEARCH USA

Power Human with Al

We create innovative solutions that are the foundation of our next generation AI products that will transform the world.





Meg Hua	III Fac ₩€I 1	e Rec Has Uyghur Alarm, Test Confirms	IPVM
	华为视频	云解决方案与旷视动态人脸识别系统互通测试报告	≝旷视
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		支持离线文件人脸抓拍功能 支持离线文件设置告警阈值,告警底库 支持离线文件抓拍/告警记录导出功能	Passed Passed

In a separate box, the report stated that Megvii's software also "passed" being able to determine "ethnicity" as part of its "face attribute analysis":





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理查兹教务长一行参观旷视科技

访问期间,理查兹教务长专门参观了清华大学全球创新学院在清华大学的办公地点,就全球创新学院的发展现状和未来方向进行了深入探 讨。他表示,清华大学全球创新学院是清华大学与华盛顿大学的重要合作成果,也是两校友谊的结晶。清华大学全球创新学院院长史元春,副 院长饶培伦、完强参加会谈。

Authoritarian Lock-in

- Predictive policing is the practice of using artificial intelligence to indicate propensity toward individuals and groups to commit crimes.
- The most common objections to predictive technologies involve the claim that they are technologically disguised racial profiling and coercive toward workers.
- Xinjiang presents a limit case of these objections.
- The authoritarian lock-in objection: that predictive technologies are used by authoritarian regimes to eliminate morally legitimate activities that threaten their exercise of power.
- Authoritarian lock-in requires not only predictive policing technologies it also requires antidemocractic laws.

Authoritarian Lock-in



- However the intentional malicious use of surveillance technologies is not significantly different from *their misuse* by democratic governments.
- Many studies have shown that use of these technologies place unjustified burdens on the freedom of racialized minority citizen and non-citizen communities
 - Producing what Sarah Brayne calls "system avoidance" in her study of LAPD use of such tools.
- Evaluating the harms caused by these technologies requires asking, who do they benefit?