
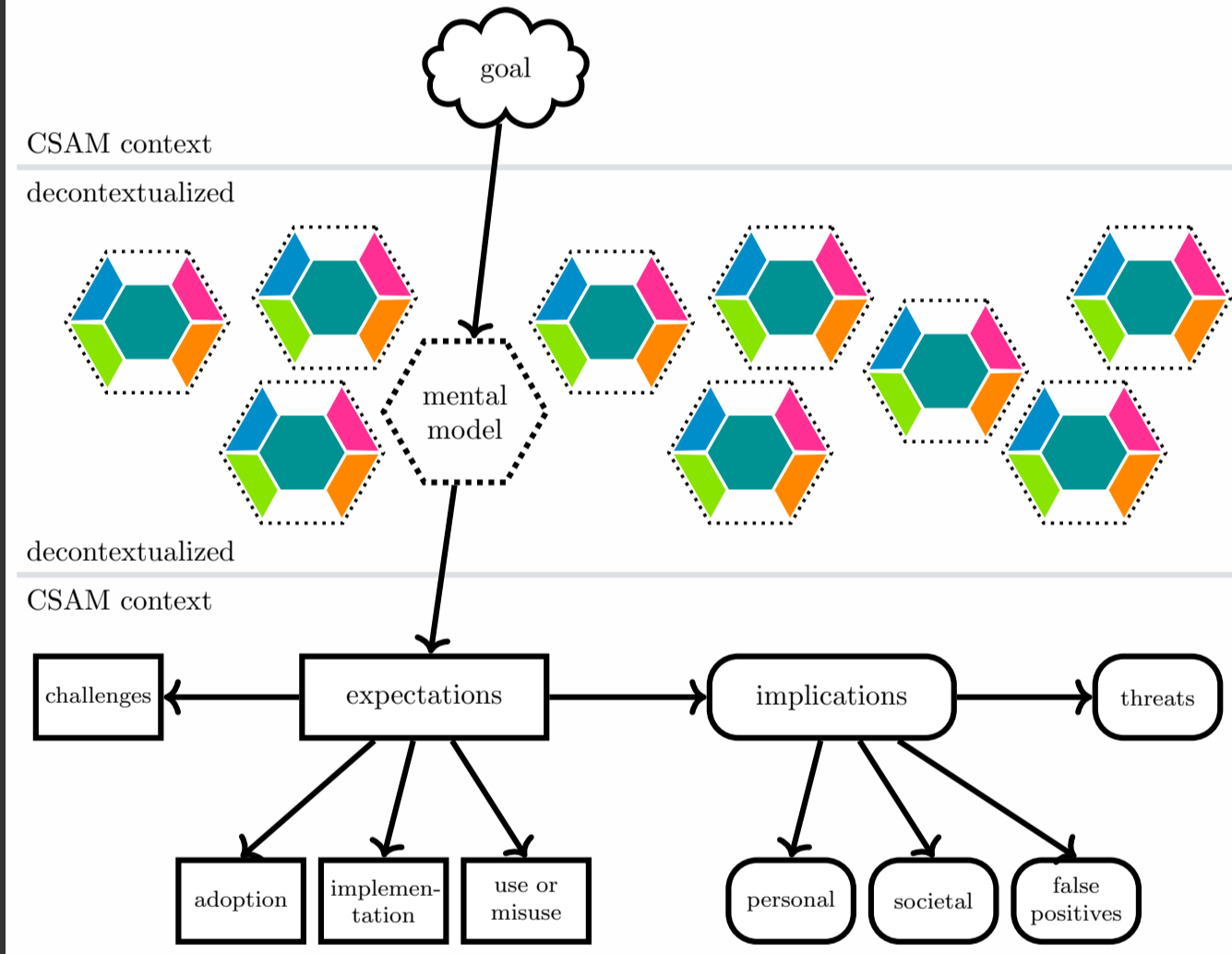
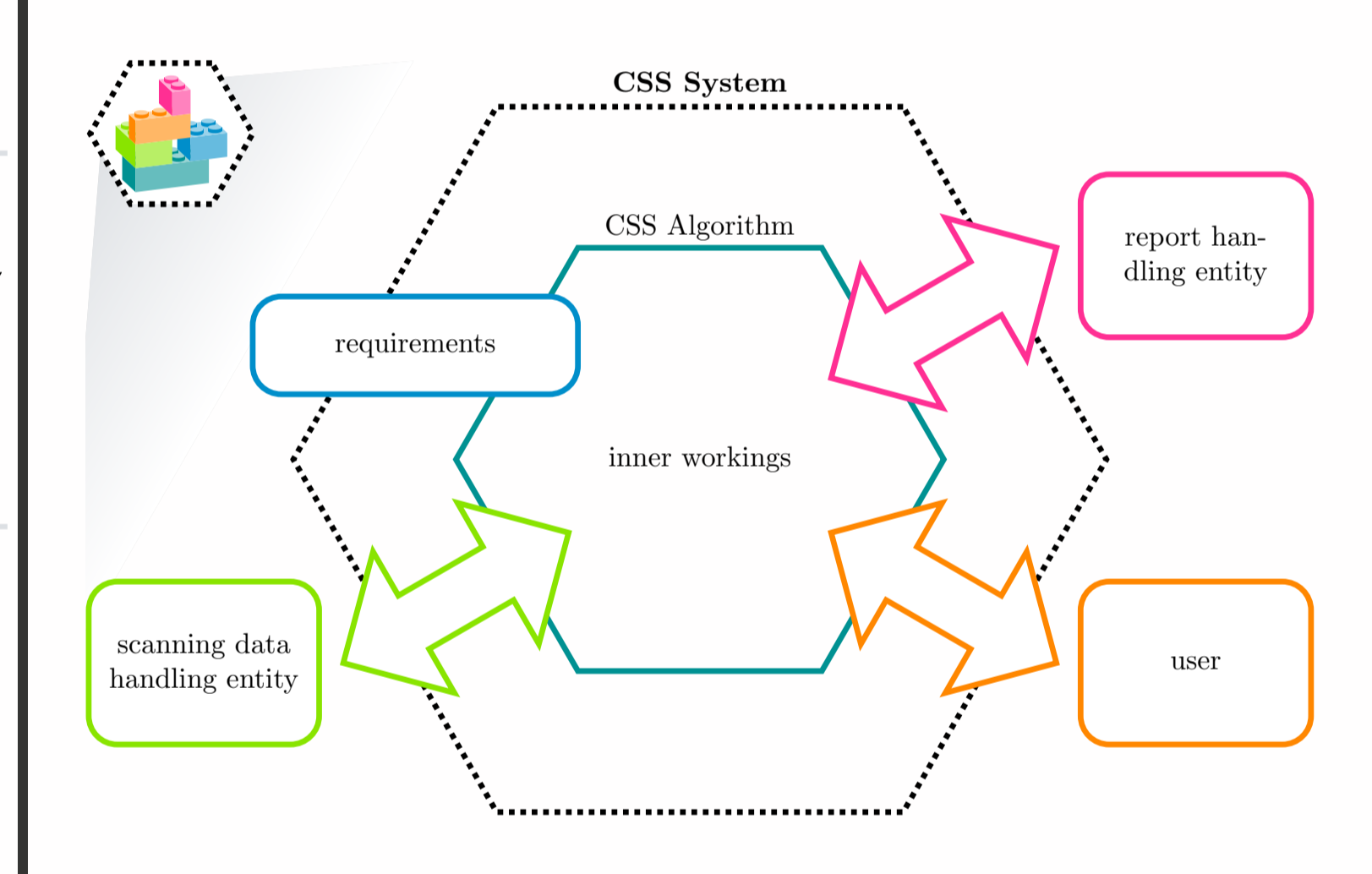
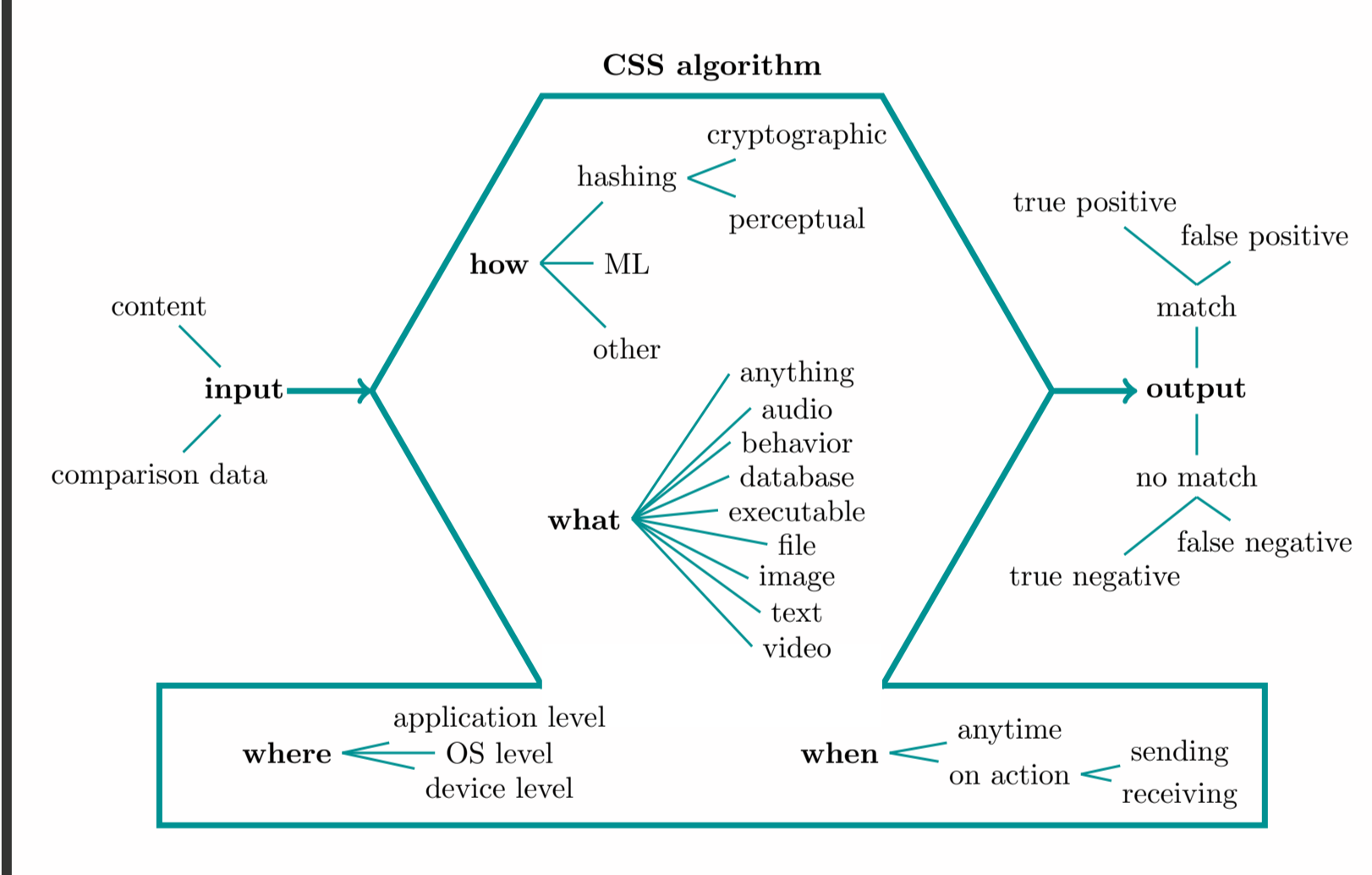
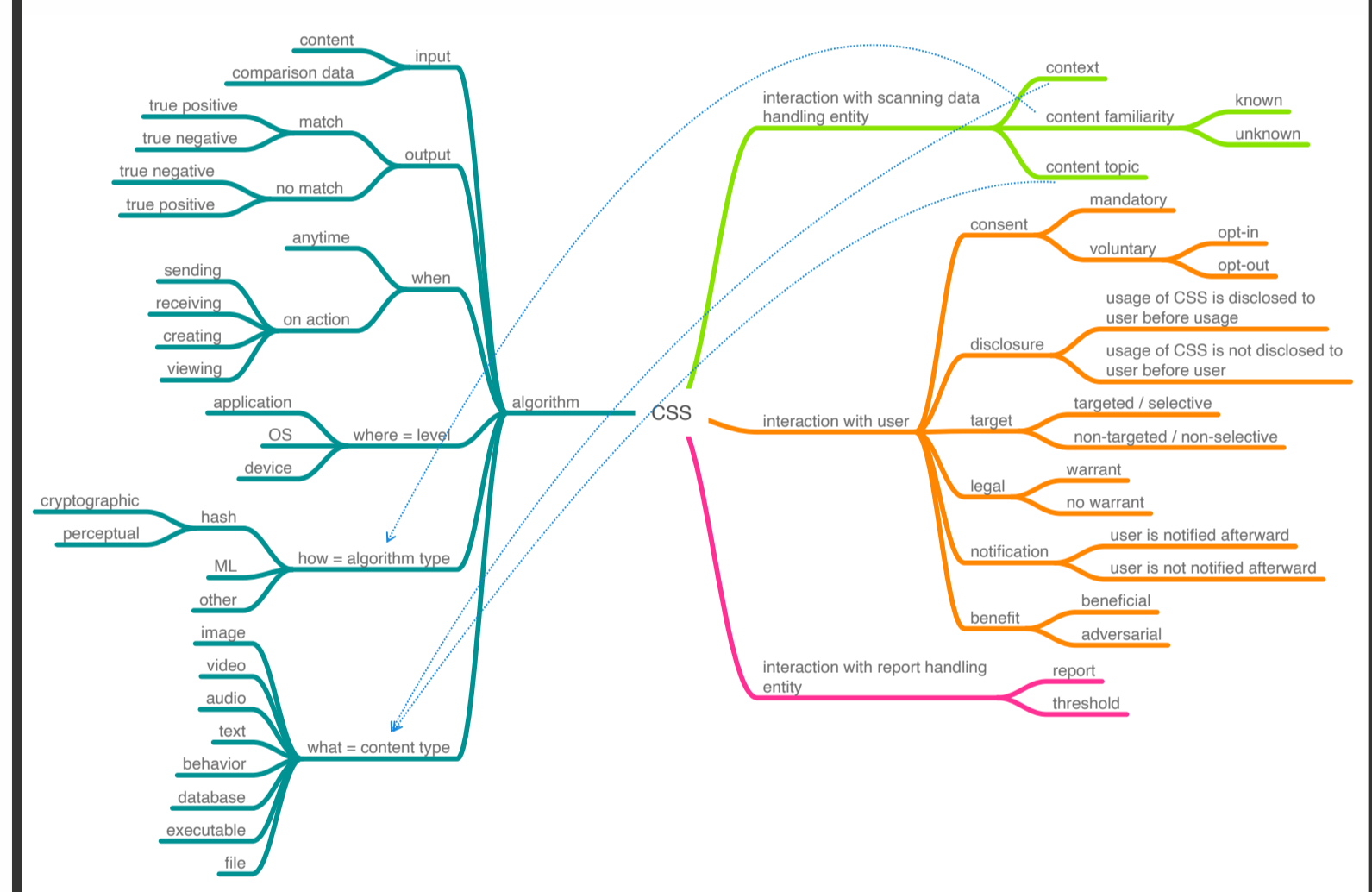


MENTAL MODELS, EXPECTATIONS AND IMPLICATIONS OF CLIENT-SIDE SCANNING: AN INTERVIEW STUDY WITH EXPERTS

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MOTIVATION What is Client-Side Scanning (CSS)?	RESEARCH QUESTIONS	METHODOLOGY	
<ul style="list-style-type: none"> In 2021, Apple wanted to introduce CSS to fight the distribution of child sexual abuse material (CSAM), which led to a lot of pushback and Apple scrapping the project at the end of 2022. However, there are still legislative proposals and connected assessments that see CSS as a solution to the dissemination of CSAM. But it is not clear, whether everyone is talking about the same thing. 	<ul style="list-style-type: none"> What are experts' <i>mental models</i> of Client-Side Scanning? What are experts' <i>expectations</i> of Client-Side Scanning? What are the potential <i>implications</i> of Client-Side Scanning? 	<p>Data Collection 28 participants: academia, digital rights, child protection, law enforcement, data protection. 25 semi-structured interview: technical understanding, expectations, implications, stakeholders.</p>	<p>Data Analysis Qualitative methods: open coding, axial coding and selective coding</p>

OVERVIEW	AGGREGATED MENTAL MODEL	INNER WORKINGS	DIMENSIONS OF CSS
			

MENTAL MODELS	EXPECTATIONS	IMPLICATIONS	TAKEAWAYS
<ul style="list-style-type: none"> People have <i>different mental models</i> for CSS which depends on factors like the type of <i>input</i> and <i>goal</i> or the level of <i>technological understanding</i>. Mental models can change depending on the <i>context</i> in which it will be applied. Clear <i>communication</i> about specific <i>versions of CSS</i> is important. 	<ul style="list-style-type: none"> Participants had <i>mixed expectations</i> about the deployment of CSS. <i>Lack of alternative</i> makes CSS attractive. Participants anticipated <i>backlash</i> and foresaw its <i>misuse</i>. <i>Mental models</i> were closely linked to the expectations of how the system would be <i>implemented</i>. Participants expected <i>technical challenges</i> once CSS systems were deployed. 	<ul style="list-style-type: none"> Personal implications include privacy breaches, confusion, fear and <i>reputational harm</i>. Societal implications would be <i>overarching</i>. Society having to <i>self-edit</i> and <i>self-censor</i> would hinder free social communication. Individuals/groups that hold <i>differing opinions</i> could be targeted. <i>False positives</i> could significantly damage <i>trust</i> in the system. 	<ul style="list-style-type: none"> <i>Children</i> and <i>teenagers</i> are particularly vulnerable to CSS. CSS is on a very <i>slippery slope</i> of being a technology that works <i>against</i> its <i>users</i>. <i>Less invasive</i> approaches like Apple's "<i>Sensitive Content Warning</i>" feature are steps in the right direction. CSAM and its dissemination is a <i>complex societal problem</i> which cannot simply be solved by technology.

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