

# Competency, What is it!

How does it apply to ORCGA DPT Certification

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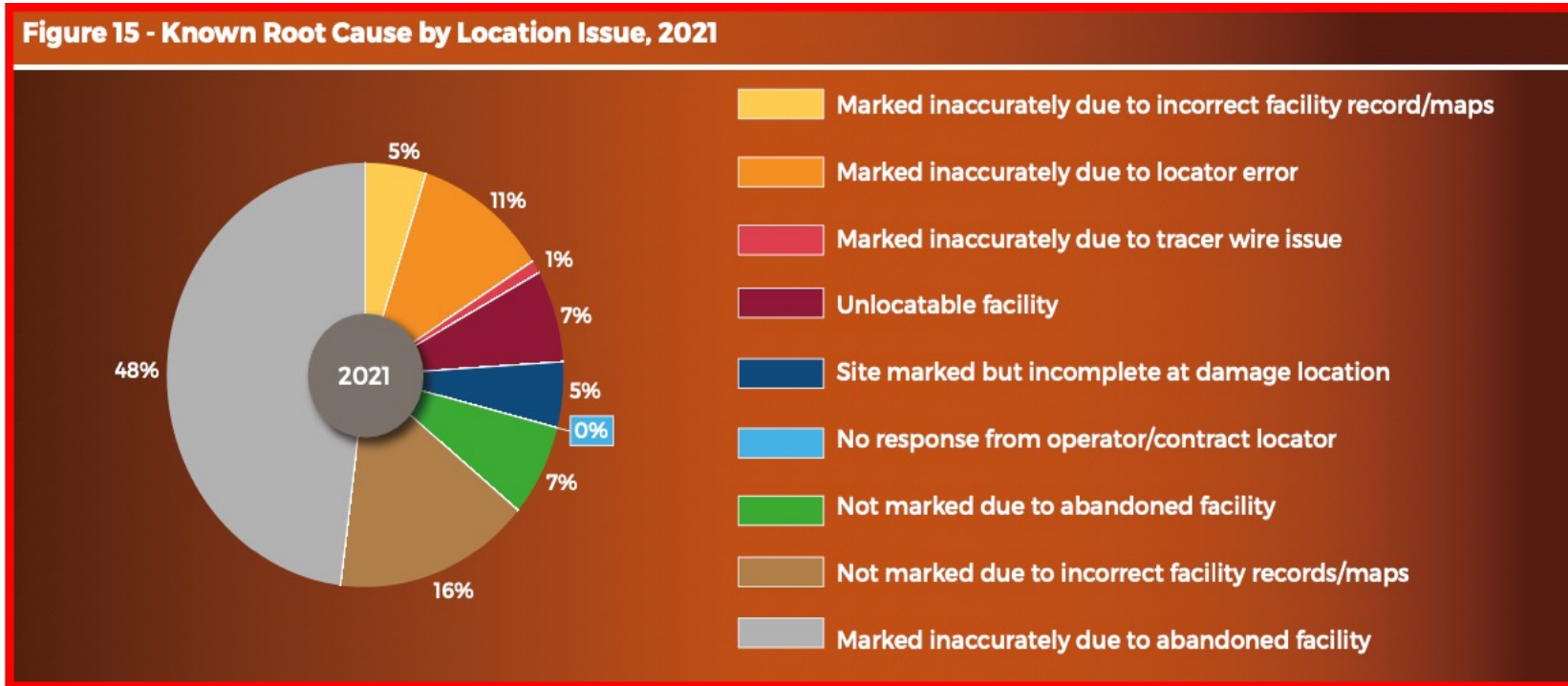
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# Let's Look at the Problem...



Source: 2021 CCGA DIRT Report



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# Back Story #1 – TR 093 (2021)

- **3-5: Training**
- **Practice Statement:** Locators are properly trained, and training is documented.
- **Practice Description:** Minimum training guidelines and practices are adopted for locator training. These guidelines and practices include the following:
  - Understanding System Design/Prints/Technology
  - Understanding Construction Standards and Practices for all Types of Facilities
  - Equipment Training and Techniques
  - Plant Recognition Training
  - Theory of Locating
  - Daily Operations
  - Facility Owner/Excavator Relationships and Image
  - ~~Workplace Safety Insurance Act and Occupational Health & Safety Act requirements~~ (Applicable regulations – see Section 6 for a list of federal and provincial regulations)
  - Understanding of company safety procedures
  - Written and Field Testing
  - Field Training
  - Refresher Training
  - **Assessment of competence on a minimum biannual frequency**

Documentation of all training is maintained to ensure that facility locators have been properly trained.

*Source: CCGA BP TR Submission*

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## Certified or Competent?

Certified — “proof or a document proving that someone is qualified for a particular job, or that something is of good quality”

*Source: American Dictionary*

Certified — “A certification is a credential that tells an employer that you have a specific skill.”

*Source: Training Industry website*

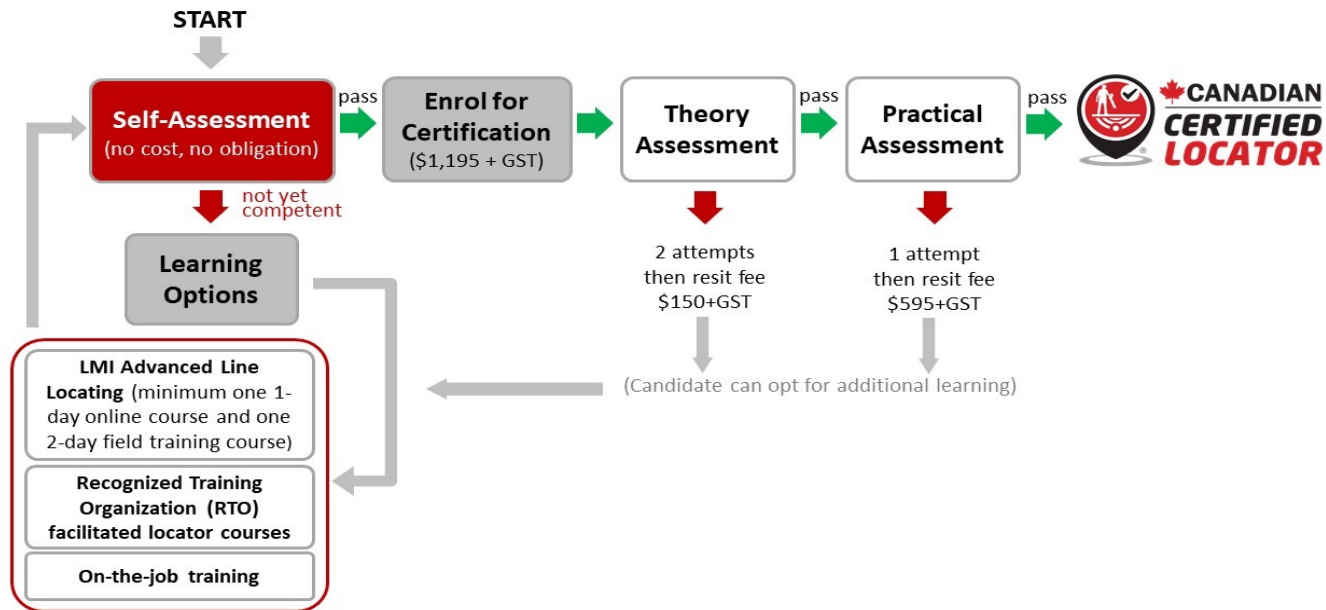


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# Canadian Certified Locator



Source: Canadian Certified Locator website

## Competency Definition - Construction Projects (Green Book)

“competent worker”, in relation to specific work, means a worker who,  
(a) **is qualified because of knowledge, training and experience to perform the work,**  
(b) is familiar with the Occupational Health and Safety Act and with the provisions of the regulations that apply to the work, and  
(c) has knowledge of all potential or actual danger to health or safety in the work;



*Source: Construction Projects, O. Reg. 213/91, s.1.(1)*

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## Competency Definition – CSA Z247 (2015)

“Competent — adequately qualified, suitably trained, and with sufficient experience to safely perform the task.”



*Source: CSA Z247 – 15 - Definitions*

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## Competency Definition – CAPULC

“An individual's proficiency in undertaking a specific function or set of tasks as characterized by four major components: theoretical knowledge, skill, experience, and behaviour.”



*Source: CAPULC - Locating and Marking Standard (2022)*

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## Competency Definition – CAPULC

“Theoretical knowledge (e.g., book knowledge) and skills (e.g., application of book knowledge under ideal conditions) are acquired more directly. Experience is achieved by applying the knowledge multiple times to address a wide range of situations and is gained over time. In contrast, behavior can be observed in the decisions or actions taken by the individual based on the combination of knowledge, skills, and experience as they apply to a specific situation.”



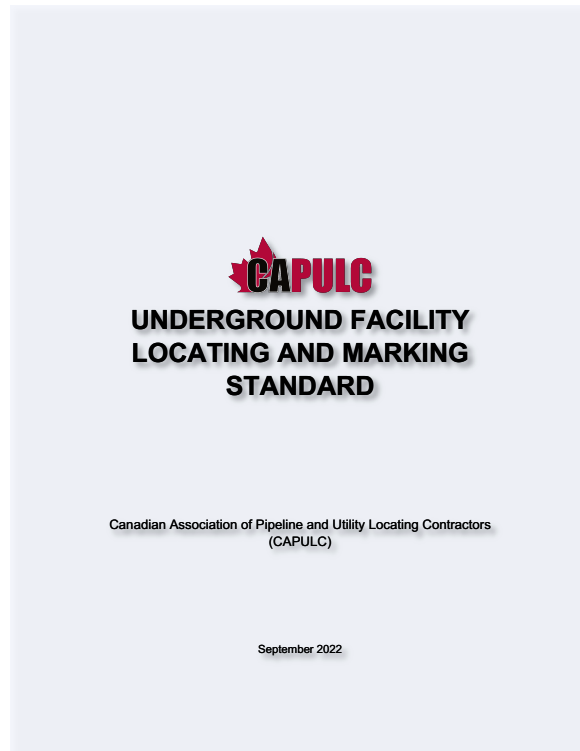
*Source: CAPULC - Locating and Marking Standard (2022)*

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# CAPULC – Locating and Marking Standard



*Source: CAPULC - Locating and Marking Standard (2022)*

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## Competency Definition – CAPULC

“To be deemed competent, a Locator should be assessed by a qualified, competent, and certified assessor”



*Source: CAPULC - Locating and Marking Standard (2022)*

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## What Programs Exist?

- Most LSP's do their own training
  - This is usually on a “need to know” basis
  - Follow the Best Practice outline, inconsistencies exist
- Plenty of online and third party training providers
  - More rounded training but based on need
  - Some offer certification

*There is a program already in place that deals with employee competency*

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## Operator Qualification

- Stems from a mandate in 1992 based on concerns from Congress and recent accidents
- Developed regulations addressing qualifications of employees and ability to recognize and react to situations
- Subjecting existing employees to hours of training was not feasible
- Thus, a verification process was established to substantiate their qualifications

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## Operator Qualification

- The intent of this qualification is to ensure a qualified workforce and to reduce the probability and consequence of incidents caused by human error
- Thus, OQ is not intended to be a one-time event, but a process that continues for the working lifetime of an individual
- After initial evaluation and qualification have been completed, there will be a point in time where re-evaluation and requalification will be required

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# Operator Qualification – First Step

## Covered Tasks

- Must have a definitive start and end
- Must have more than one step to complete
- Should be a Operations or Maintenance task
- Can have sub tasks if the task is complicated

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# Operator Qualification – Three Parts

**Knowledge Test**

**Abnormal Operating Conditions**

**Practical Assessment**

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# Operator Qualification – Knowledge Test

## Knowledge Test

- Multiple choice and True/False questions
- Number of questions vary by complexity of the task
- A mix of technical or safety related questions
- 80% to 90% pass rate normal

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## Operator Qualification - AOC

### **Abnormal Operating Conditions**

- Events that an individual could encounter while performing the task
- They should be site specific to encourage thought
- They can be accident or safety related
- Emphasis on how to recognize and react to situations

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# Operator Qualification – Practical Assessment

## Practical Assessment

- Use of a validated, step by step checklist for that task
- Actual performance of the task is a priority
- Must include adequate interaction to determine qualification
- Emphasis in identifying “workarounds” being performed

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## Summary

“The evaluation of an individual’s qualifications should be an objective, consistent process that documents an individual’s ability to perform the covered task and recognize and react to an abnormal operating condition.”

*Source: U.S. DOT – Pipeline and Hazardous Materials Safety Administration*

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## ORCGA DPT Certification

The Ontario Regional Common Ground Alliance (ORCGA) developed a **DPT Certification Program** with the assistance of numerous subject matter experts, The Province of Ontario and Humber College.

**The program combines:**

- In-class instruction
- Field awareness review
- On-the-job competency assessment

The Course provides instruction on the fundamentals of locating based on locating practices employed by specific industries. Two programs are available; the **DPT 100** is for those new to the locating industry and the **DPT 200** is an advanced, accelerated program, designed specifically for utility locators with a minimum of three years direct industry locating experience.

*Source: Locate Alliance Consortium Website*

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## ORCGA DPT Certification

DPT 100, is open to anyone. DPT 100 is a 40-hour (5 day) course combining theory and technical knowledge and is of interest to both current locators and those new to the industry.

DPT 200 is a 24-hour (3 day) advanced course designed specifically for utility locators with a minimum of three years in the locating industry. In order to qualify for DPT 200, applicants must provide a signed letter from their employer, on company letterhead, confirming they have the required practical experience.

This accelerated program covers the same material as DPT 100 but with a large portion of pre-work completed prior to class

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## ORCGA DPT Certification

After successfully completing the DPT 100 or DPT 200 course, with a passing score of 80% or greater, the student receives and retains a copy of their transcripts.

After the required practical locating experience requirements have been met (DPT 100 is a minimum of 6 months, DPT 200 is a minimum of 36 months), the certification process can be initiated.

The certification process includes submitting the following to ORCGA for certification:

- competency assessment
- copy of applicant's transcript
- letter from employer on company letterhead verifying applicant's work experience

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# Let's get to the Point! - Comparing DPT to OQ

- Applicant supplies their transcript as proof of basic training and knowledge
- The applicant has been assessed by a knowledgeable person designated by the employer
- The key to the OQ program is to identify gaps in training and to identify “workarounds” which may be hazardous or lead to errors

Assessor Initials & Date \_\_\_\_\_ APPLICANT NAME \_\_\_\_\_  
 Applicant Initials \_\_\_\_\_

**SECTION 2 CATEGORY - SPECIFIC LOCATING COMPETENCY ASSESSMENT**

**2.1 GAS/OIL - PIPE LOCATING- DIRECT CONNECTION**

PUBLIC LOCATE  PRIVATE LOCATE  SIMULATED LOCATE

ADDRESS: \_\_\_\_\_

		YES	NO	NA
<b>DURING THE OBSERVED LOCATING ACTIVITIES, DID THE INDIVIDUAL</b>				
2.1.1	VERIFY THE SCOPE OF THE LOCATE REQUEST			
2.1.2	REFER TO THE RECORDS PROVIDED TO DETERMINE THE PRESUMED LOCATION, TYPE, SIZE AND MATERIAL OF THE PIPES TO BE LOCATED			
2.1.3	CONFIRM THE PRESENCE OF ANY VISUAL INDICATORS WHICH CONFIRM THE ACCURACY OF THE RECORDS			
2.1.4	EXPLAIN THEIR LOCATION WITHIN PIPE NETWORK			
2.1.5	DESCRIBE THE LIKELY PATH OF THE CONDUCTOR BEING TRACED			
2.1.6	IDENTIFY OTHER CONDUCTORS LIKELY TO BE PRESENT IN THE LOCATE VICINITY			
2.1.7	CONNECT THE TRANSMITTER IN AN APPROPRIATE MANNER			
2.1.8	GROUND THE TRANSMITTER IN AN APPROPRIATE MANNER			
2.1.9	SELECT AN APPROPRIATE FREQUENCY			
2.1.10	CONDUCT AN APPROPRIATE INITIAL SWEEP OF THE TARGET AREA WHEN BEGINNING THE LOCATE			
2.1.11	TRACE THE PATH OF THE CONDUCTOR			
2.1.12	COMPARE PEAK RESPONSE TO NULL RESPONSE			
2.1.13	TAKE A DEPTH READING AND VALIDATE THE RESPONSE			
2.1.14	TAKE A CURRENT MEASUREMENT AND VALIDATE THE RESPONSE			
2.1.15	TRACE THE PATH OF THE PIPE AROUND A CORNER AND/OR SPLIT			
2.1.16	TAKE THE APPROPRIATE STEPS TO ATTEMPT TO CONFIRM THE TRUE PATH OF THE TARGET CONDUCTOR, IF MULTIPLE SIGNALS ARE PRESENT ( CAUSED BY SPILLAGE, GHOSTING, ETC.)			
2.1.17	USE THE APPROPRIATE MARKING TECHNIQUES TO IDENTIFY THE PATH OF THE CONDUCTOR			
2.1.18	COMPLETE THE REQUIRED DOCUMENTATION			
2.1.19	COMPLETE THE TASK FOLLOWING ALL APPROPRIATE SAFETY REGULATIONS			
<b>CAN THE INDIVIDUAL</b>		<b>YES NO</b>		
2.1.20	EXPLAIN WHAT WOULD BE THE EFFECT OF AN INSULATOR ON THE PIPE BEING LOCATED IN THE VICINITY OF THE CONNECTION POINT			
2.1.21	DESCRIBE THE EFFECT ON THE FIELD OF A CONDUCTOR CHANGING DIRECTIONS			
2.1.22	EXPLAIN WHAT CAUSES LOCATING SIGNALS TO SOMETIMES "SPLIT" UNEVENLY WHEN THE CONDUCTOR BEING LOCATED JOINS OR TAPS INTO ANOTHER			
2.1.23	EXPLAIN THE LIKELY CAUSE(S) AND POSSIBLE SOLUTION(S) IF DEPTH READING IS IMPROBABLE OR CANNOT BE VALIDATED			



# Let's get to the Point! - Comparing DPT to OQ

- Guidelines designed to minimize subjectivity and to maximize consistency during work performance
- Designed to have considerable interaction with the applicant during the process
- AOC's built into the assessment using verbal quizzing about the effects of different locating challenges

Assessor Initials & Date \_\_\_\_\_ APPLICANT NAME \_\_\_\_\_  
 Applicant Initials \_\_\_\_\_

**SECTION 2 CATEGORY - SPECIFIC LOCATING COMPETENCY ASSESSMENT**

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# Let's get to the Point! - Comparing DPT to OQ

- Signoff is the key to the integrity of the program
- The person who is responsible for that individual's pay, training and legal liability is signing off
- Education & Training Committee is responsible for the integrity of the program. This is done by constant review of the applicants and industry trends

## SECTION 9 CONFIRMATION OF COMPLETION OF COMPETENCY ASSESSMENT

I HAVE COMPLETED THE ASSESSMENT OF (Applicant's Name) \_\_\_\_\_ AND BASED ON WHAT I HAVE PERSONALLY OBSERVED I AM SATISFIED THAT THEY HAVE EXHIBITED THE SKILLS, KNOWLEDGE, AND ABILITY TO CONDUCT LOCATES ON THE FOLLOWING CATEGORIES OF BURIED UTILITIES IN A COMPETENT MANNER.

	DATE OF ASSESSMENT D/M/Y	NUMBER OF MONTHS LOCATING THIS CATEGORY OF UTILITY 6 MONTH MINIMUM	NUMBER OF LOCATES COMPLETED 100 MINIMUM PER UTILITY 20 MINIMUM - SONDE
GAS/OIL	<input type="text"/>	_____	_____
POWER	<input type="text"/>	_____	_____
TELECOM	<input type="text"/>	_____	_____
WATER	<input type="text"/>	_____	_____
SEWER	<input type="text"/>	_____	_____
SONDE	<input type="text"/>	_____	_____

THIS ASSESSMENT WAS CONDUCTED BY \_\_\_\_\_ PRINT NAME \_\_\_\_\_  
 \_\_\_\_\_ SIGNATURE \_\_\_\_\_  
 \_\_\_\_\_ TITLE \_\_\_\_\_  
 \_\_\_\_\_ COMPANY NAME \_\_\_\_\_  
 \_\_\_\_\_ PHONE# \_\_\_\_\_  
 \_\_\_\_\_ EMAIL \_\_\_\_\_

### EMPLOYER STATEMENT TO BE COMPLETED BY THE BUSINESS OWNER/MANAGER OF THE PERSON CONDUCTING THE ASSESSMENT

IN RECOGNITION OF THE FACT THAT \_\_\_\_\_ PRINT NAME OF APPLICANT HAS WORKED THE REQUIRED NUMBER OF MONTHS IN EACH OF THE CATEGORIES LISTED ABOVE AND HAVING REVIEWED AND APPROVED THE COMPETENCY ASSESSMENT, AND BEING SATISFIED THAT THE APPLICANT HAS THE SKILLS AND PRACTICAL KNOWLEDGE REQUIRED TO CONDUCT LOCATE ACTIVITIES IN A SAFE AND THOROUGH MANNER, I SUPPORT THE APPLICANT'S SUBMISSION FOR THE DAMAGE PREVENTION TECHNICIAN DESIGNATION.

ORCGA USE ONLY	
APPLICATION APPROVED FOR	
GAS/OIL	<input type="checkbox"/>
POWER	<input type="checkbox"/>
TELECOM	<input type="checkbox"/>
WATER	<input type="checkbox"/>
SEWER	<input type="checkbox"/>
SONDE	<input type="checkbox"/>
EFFECTIVE	D/M/Y _____
CERTIFICATE ISSUED	_____

PRINT NAME \_\_\_\_\_  
 SIGNATURE \_\_\_\_\_  
 TITLE \_\_\_\_\_  
 COMPANY NAME \_\_\_\_\_  
 PHONE# \_\_\_\_\_  
 EMAIL \_\_\_\_\_  
 DATE \_\_\_\_\_



**QUESTIONS?**

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# **Please fill out your survey!**

Open the **Attendee Hub App**,  
tap on **Agenda** and then tap on

**Competency, What is it!**

and complete the survey for this session.

**OR**

**If you are unable to download the app, a paper  
survey is available.**

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