		Technology Tools, Trends, and Risk Management Timed Outline	
Course Objectives			
Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.			
Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.			
Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.			
Describe technological advances that keep online data secure.			
Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.			
Unit 1: Technology Tools for Sellers			
Minutes	Lesson Title	Unit Learning Objectives	
5	Providing Better Client Service through Technological Advances in Photography and Video	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and describe ways to minimize risks involved in their use.	
5	Legal Aspects of Using Drones When Listing Property		
5	Floorplan Software: Is Accuracy a Concern		
5	Advances in Lockboxes and Signs Come with Risks as Well as Rewards		
5	Technology and Advertising: Risks and Rewards		
5.0	Unit Exam		
Unit 2: Technology Tools for Buyers			
10	The Buyer Representation Agreement: Key to Superior Client Service	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.	
5	Financing Technology for Buyers		
5	Technology Helps You Do Your Homework Before the Showing		

Technology Tools, Trends, and Risk Management (4 hr)

10	Technology Tools for Buyer Communication: First, Ask the Right Questions	
5	Technology to Prevent Buyer Overwhelm	
5.0	Unit Exam	
Unit 3: Technology Tools for Transaction Management		
		Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.
10	Using Technology for Document Management	
10	CRM Software: Superior Service, Reduced Risk	
10	Cloud Storage and Digital Organization Tools	
5.0	Unit Exam	
Unit 4: Technology Tools for Safety and Security		
10	Reducing Online Risk	Describe technological advances that keep online data secure.
10	Making Email More Secure	
5	Security in the Clouds	
5.0	Unit Exam	
Unit 5: Technology Trends Impacting Real Estate		
5	Your Technology Foundation	Identify technology tools real estate licensees can use now to serve their clients and describe emerging trends to watch.
5	Managing Social Media	
5	Snapchat	
10	Big Data, Big Connections	
5	Livestreaming Video	
5	Virtuality: Spaces, Assistants, Transactions, Properties, Staging	
5	Emerging UX	
10	Artificial Intelligence Gets Smarter	
5.0	Unit Exam	
10.0	FINAL EXAM	

Technology Tools, Trends, and Risk Management (4 hr)

200	TOTAL MINUTES	
4.0	TOTAL HOURS	

Unit #	Difficulty Level (1-3)	Question	A1	A2	A3	A4	Correct Answer	Feedback	Course Objective
1	2	According to the National Association of REALTORS® 2017 report, 89% of buyers use _____ to determine whether to see a property.	Intuition	Online photos	Facebook	Advice	A2	Photos sell. Nearly all buyers make the decision on whether to see a property, based on photos. This was covered in Unit 1, Lesson 1, page 5.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
1	2	Which of the following is a true statement about MLS photos?	Very few buyers look at them.	They're largely ineffective.	If they're not quality, they do sellers a disservice.	A professional photographer is required.	A3	if you lack photography skills and appropriate equipment, hire a professional photographer. This was covered in Unit 1, Lesson 1, page 5.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
1	2	Ray is editing photos of his client's property before he attaches them to the MLS posting. Which of the following should he do?	Edit out the cat.	Edit out the water tower in the back yard.	Add flowers to the front walkway, using virtual reality.	Change the paint color, if it's unfavorable.	A1	It's fine to remove a family pet from the photos, but photos shouldn't be deceiving. This was covered in Unit 1, Lesson 1, page 6.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
1	2	What's the Girotopic iO?	A photo editor	A 3D camera	A virtual reality headset	A social media site	A2	The Girotopic iO is a 360-degree camera you can attach to your iPhone. It allows you to take photos, record videos, and even livestream video in 360 degrees. This was covered in Unit 1, Lesson 1, page 7.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
1	2	Some technical experts believe that, just as video has become de rigueur on the web, ultimately all of our interactions with the digital realm will _____.	In 2D	On camera	in 3D and virtual reality	in chatbots	A3	Experts believe that 3D and virtual reality are the future, so you may want to stay ahead of the curve with this technology. This was covered in Unit 1, Lesson 1, page 7.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
1	2	Which of the following is a camera you attach to your phone, allowing you to take photos, record videos, and live stream video in 360 degrees?	Matterport	Girotopic iO	Virtual reality headset	Snapseed	A2	This describes the Girotopic iO, which attaches to an iPhone. This was covered in Unit 1, Lesson 1, page 7.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
1	2	A good use of livestreaming would be _____.	A For Sale Sign	A flyer or mailer	An event	A CMA	A3	Any engaging and time-sensitive event is appropriate for livestreaming. This was covered in Unit 1, Lesson 1, page 9.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
1	2	Livestreaming is _____.	Similar to the MLS	Similar to email	Inappropriate for most uses	Best for time-sensitive events	A4	Livestreaming is becoming more popular, and can be used on social media sites such as Twitter and Facebook. This was covered in Unit 1, Lesson 1, page 9.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
1	1	What's a drone?	A chatbot	A walking robot	An unmanned aerial vehicle	A software virus	A3	A drone is an unmanned aerial vehicle that's sometimes used in real estate to take aerial photography and video. This was covered in Unit 1, Lesson 2, page 10.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.

Unit #	Difficulty Level (1-3)	Question	A1	A2	A3	A4	Correct Answer	Feedback	Course Objective
1	2	Is there an age limit for commercial drone operation?	Yes, the operator must be at least 16 years old.	Yes, the operator must be at least 18 years old.	Yes, the operator must be at least 21 years old.	No, there's no age limit.	A1	Operators of commercial drones must be at least 16 years old. This was covered in Unit 1, Lesson 2, page 10.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
1	2	Which of the following rules apply to commercial drone operation?	Operators must be at least 18 years old.	Drones must be kept within visual sight of the operator.	Drones must only be operated at night.	Drones must not fly higher than 200 feet above ground.	A2	Drones must be kept in the visual sight (with the naked eye) of the operator. This was covered in Unit 1, Lesson 2, page 10.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
1	2	How high above ground may commercial drones fly?	100 feet	200 feet	300 feet	400 feet	A4	Drones may not be flown above 400 feet. This was covered in Unit 1, Lesson 2, page 10.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
1	2	What's the maximum speed a commercial drone is allowed to fly?	55 mph	80 mph	99 mph	200 mph	A3	Commercial drones must be kept under 100 miles per hour. This was covered in Unit 1, Lesson 2, page 10.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
1	2	What credentials must a commercial drone operator possess?	A pilot's license	A remote pilot certificate	An FAA Level 3 security clearance	A driver's license	A2	Commercial drone operators must be at least 16 years old, pass an aeronautical knowledge test in an FAA-approved facility, and pass a background check to qualify for a remote pilot certificate. This was covered in Unit 1, Lesson 2, page 10.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
1	2	To create a complete virtual tour of a property, drone video footage can be combined with the drone's ground-based cousin, the _____.	Digital phone	Girotopic ID	Snapchat	Sketch-Stitch	A3	A glidecam can be used to provide a virtual tour of the home's interior. This was covered in Unit 1, Lesson 2, page 12.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
1	2	A complete drone package for real estate video use requires a 4K camera, flight control software, flight controller, three-axis gimbal, live video, and _____.	A walkie-talkie	A satellite dish	A flying platform	A backup system	A3	The flying platform is the visible drone. This was covered in Unit 1, Lesson 2, page 10.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
1	2	Which of the following is a drone component used for real estate video?	Flying platform	Four-axis gimbal	Glidecam	Walkie-talkie	A1	The flying platform is the visible drone. This was covered in Unit 1, Lesson 2, page 10.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
1	2	Which of the following is true about floorplans?	Floorplan software is available.	Licensees should not attempt to create floorplans themselves	Neither building departments nor appraisers can provide floorplans to licensees.	Walkie-talkie is more common for older properties to have available floorplans than for newer properties.	A1	Floorplan software is available to assist licensees in creating their own floorplans. This was covered in Unit 1, Lesson 3, page 15.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.

Technology Tools, Trends, and Risk Management: Elective Course - Unit and Final Exam Banks

Unit #	Difficulty Level (1-3)	Question	A1	A2	A3	A4	Correct Answer	Feedback	Course Objective
1	1	TruPlace and RoomSketcher are both 2 examples of _____.	Building styles	Floorplan software	3D cameras	Virtual reality applications	A2	Software options for floorplans include TruPlace, Floorplan Visuals, and RoomSketcher. This was covered in Unit 1, Lesson 3, page 15.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
1	1	What's the purpose of the integration with REALTORS® Property Resource, when used in conjunction with 2. SentiLock?	To answer buyer questions	To provide added privacy	To automatically lock doors and windows when the showing is over	To provide comparative market analyses for prospective buyers	A1	The National Association of REALTORS® has integrated its REALTORS® Property Resource function with its SentiLock lock boxes equipped with the SentiSmart app to provide on-the-spot answers to client questions. This was covered in Unit 1, Lesson 4, page 17.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
1	1	In order for the REALTORS® Property Resource function to work with the 2. SentiLock lockbox _____.	An additional fee applies	The lockbox must be equipped with laser	The lockbox must be equipped with SentiSmart	The seller must live inside city limits	A3	The integration can occur only if the lockbox is equipped with SentiLock. This was covered in Unit 1, Lesson 4, page 17.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
1	1	2. Yard signs are _____.	No longer in use	Fading in popularity	Highly restrictive	Effective	A4	Yard signs are a marketing tool that's withstood the test of time in technology. Yard signs are used to target the market and engage people. This was covered in Unit 1, Lesson 4, page 18.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
1	1	Which of the following is a recent 2. change in yard signs?	Motion sensors	Audio	QR codes	Built-in telephones	A3	By placing a unique QR code on a real estate sign, rider, or flyer box on the sign, it makes it easy for you to link to all of the information a buyer will need to decide whether to see this property. This was covered in Unit 1, Lesson 4.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
1	1	The Dutch invented iBeacons, which 2. _____.	Illuminate yard signs	Turn house lights on when people enter a room	Shine a spotlight on a house at night	Automatically provide touring data	A3	iBeacons inside the home are triggered as the visitor tours the home, and features of the current room, such as wainscoting, custom draperies, etc., are "beamed" to the visitor's smart phone. This was covered in Unit 1, Lesson 4, page 19.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
1	1	Compared to online advertising, print 2. advertising is _____.	Less expensive	More effective	Both less expensive and more effective	Both more expensive and less effective	A4	Print advertising for real estate is less effective than online advertising, because buyers tend to shop online. This was covered in Unit 1, Lesson 5, page 21.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
1	1	Of the options provided, which is the most common way buyers find homes, according to the 2017 NAR buyer and 2. seller profile?	Open house	Print advertisement	Yard sign	Real estate agent	A2	Of the choices given, using a real estate agent is the most common way that buyers find homes. Even more common? Searching the Internet. This was covered in Unit 1, Lesson 5, page 21.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.

Technology Tools, Trends, and Risk Management: Elective Course - Unit and Final Exam Banks

Unit #	Difficulty Level (1-3)	Question	A1	A2	A3	A4	Correct Answer	Feedback	Course Objective
1	2	What does the Adwerx application do?	Follows viewers and presents relevant ads to them	Integrate blog articles across social media platforms	Sells key word advertising to enhance search engine ranking	Creates ads based on a few key words	A1	Adwerx (adwerx.com) for instance, will post ads on Facebook, websites, geographic areas, and can even "follow" viewers who've looked for real estate on some sites through cookies, presenting your ads even after they've left those sites. The site also provides advertising result reports you can share with your clients. This was covered in Unit 1, Lesson 5, page 23.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
2	2	Mark requires a signed buyer representation agreement before working with a buyer. This _____.	Will cost him business	Is unprofessional	Helps him preserve his time for his clients	Is illegal	A3	Licenses don't have to work for free, and they don't have to work without a signed buyer representation agreement. This was covered in Unit 2, Lesson 1, page 27.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
2	2	The best time to inform buyers that you require a buyer representation agreement before working for them is _____.	After they fall in love with a house	Just prior to writing an offer on their behalf	When in negotiations with the seller	Before working with them	A4	A good way to do this is: My clients deserve my undivided loyalty and priority scheduling. Therefore, I exclusively serve buyers and sellers with whom I have signed representation agreements. This was covered in Unit 2, Lesson 1, page 27.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
2	2	When working with buyers, it's important to ask prequalifying questions, such as _____?	Have you ever been married before	Who's your tax advisor	Are you working with a lender	What's your date of birth	A3	Buyers should obtain prequalification from a lender prior to shopping for a home so they know how much home they can afford. This was covered in Unit 2, Lesson 2, page 30.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
2	2	Mortgage calculator apps can help you _____.	Determine a buyer's credit score	Prequalify a buyer by calculating debt-to-income ratio and total housing debt ratio	Calculate mortgage payments when given a home price	Calculate mortgage payments when given principal, interest, and terms	A4	These apps can help calculate mortgage payments when given principal, interest, and term, or reverse calculate any one variable, when given the others. This was covered in Unit 2, Lesson 2, page 30.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
2	2	Why might a licensee choose to use a mortgage calculator app, rather than an online mortgage calculator?	They're more accurate.	They're less expensive.	They're more convenient.	They offer more features.	A3	Having an app at the ready—one they're familiar with using—can help licensees get their buyers the information they need more quickly. This was covered in Unit 2, Lesson 2, page 30.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
2	2	Which of the following is a true statement about buyer financing?	Lowest interest rates means lowest overall costs.	The Loan Estimate form makes it harder to compare loans.	Most loans are essentially the same, because they're based on a buyer's credit score.	Often, a lender's low interest rate is offset by added costs to finance the loan.	A4	Loan comparison apps can help take the guesswork out of financing costs, and the Loan Estimate is formatted to make this comparison simpler. This was covered in Unit 2, Lesson 2, page 31.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
2	2	How can buyer agents best use Google Earth to assist buyers?	They can show them great vacation destinations.	They can provide a 3D look at the property's setting.	They can provide them with additional interior shots.	They can provide them with demographics for the neighborhood.	A2	Google Earth provides a 3D look at the property, its surroundings, its proximity to other residences, freeways, and industry. This was covered in Unit 2, Lesson 3, page 34.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.

Unit #	Difficulty Level (1-3)	Question	A1	A2	A3	A4	Correct Answer	Feedback	Course Objective
2	2	What should a buyer's agent do, before showing a buyer a listing they found on MLS?	Determine the demographics of the nearest neighbors.	Ask the buyers to bring their checkbook in case they want to write an offer on the spot.	Complete the paperwork in advance for an offer.	Research the property.	A4	A lot of information can be gleaned prior to a showing to help a buyer determine if it's really worth seeing. This was covered in Unit 2, Lesson 3, page 34.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
2	2	Who's ultimately responsible for researching a property's crime statistics prior to the buyers writing an offer?	The buyer's agent.	The buyers.	The seller.	The seller's agent.	A2	Buyers are ultimately responsible for researching crime statistics, school district changes, and whether appropriate permits were pulled during the latest remodeling. This was covered in Unit 2, Lesson 3, page 35.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
2	2	Which of the following is a true statement about buyer showings?	It's helpful to obtain permit information prior to a showing.	Google Map is predominantly routing software.	Google Earth is predominantly routing software.	Crime statistics shouldn't be provided to buyers.	A1	This can forewarn buyers of potential issues, and help them decide whether they want to see the property or not. This was covered in Unit 2, Lesson 3 page 34.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
2	2	Rita uses routing software for her buyer showings. This is likely because	Has no sense of direction	Has more than eight properties to show	Doesn't know the area well	Wants to save time and gas	A4	Routing planners can help you determine the quickest route to any location, and, the best sequence for your showings. This was covered in Unit 2, Lesson 3, page 35.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
2	2	Janie entered the addresses of the homes her buyers wanted to see into a software app, which then mapped out the best sequence of showings. The software was likely named	Google Earth	Google Map	SpeedyRoute	BuyerCompare	A3	Routing planners, such as Route4Me, RouteXL, SpeedyRoute, and My Route Online, can help licensees determine the quickest route, and the best sequence for showings. This was covered in Unit 2, Lesson 3, page 35.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
2	2	Which software application or online source can help buyer agents save time and gas on buyer tours?	Routing software	Tax assessor site	Google Earth	GasForLess	A1	Routing planners can help you determine the quickest route to any location, and, the best sequence for your showings. This was covered in Unit 2, Lesson 3, page 35.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
2	2	Automatic MLS email feeds should be sent to buyers	Daily	Every other day	Weekly	At the schedule requested by the buyer	A4	Automatic email feeds should be sent with the frequency your clients expect it—daily, weekly, (or an "asap" alert in a hot market), etc. This was covered in Unit 2, Lesson 4, page 37.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
2	1	Why is it important to ask buyers how often they want to receive an MLS listing feed?	It costs money each time a feed is sent to them.	They may be working with more than one agent, and you don't want to clog their email.	Not all buyers are in the same hurry to buy.	To save you time.	A4	Not every buyer is in the same hurry, but even if your buyer asks for "Friday feeds only," be sure to check in periodically to see if that situation has changed. This was covered in Unit 2, Lesson 4, page 37.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.

Unit #	Difficulty Level (1-3)	Question	A1	A2	A3	A4	Correct Answer	Feedback	Course Objective
2	2	Your buyer is interested in a property, but isn't ready to make an offer yet. How can you best keep tabs on the property's status?	Drive by frequently.	Ask the listing agent to keep you informed.	Set up a hot sheet on MLS to track it.	Ask the sellers to keep you informed.	A3	If your buyer is interested in a property, but thinks it's priced a little high or isn't quite ready to make an offer yet, add it to your hot sheets to keep tabs on price changes, status changes (e.g., active to pending or withdrawn), and communicate these to your buyer. It takes very little time and it will convey to your buyer that you're on top of the market, and their specific needs. This was covered in Unit 2, Lesson 4, page 38.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
2	2	Which form of buyer communication sends you, as an agent, updates on MLS activity pertaining to specific properties your buyer is looking at?	MLS automated feeds	Hot sheet feature on MLS	NextDoor	GoogleAlerts	A2	This may be called something different on your MLS, but it's a notification you receive when status or pricing changes on a property you select. This was covered in Unit 2, Lesson 4, page 38.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
2	2	Barb is notified every time the neighborhood her buyers are interested in is mentioned online. Barb has likely subscribed to _____.	NextDoor	Google Alerts	Google Earth	NeighborFind	A2	You simply enter the search terms you want to receive alerts for, and are automatically notified when the term appears online. This was covered in Unit 2, Lesson 4, page 38.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
2	2	House Hunter is an app that allows buyers to _____.	Route buyer tours	Rate and compare houses	See a 3D view of the property's exterior	Search demographics about the neighborhood	A2	House Hunter allows buyers who've already identified homes to enter their addresses and score them on as many as 80 criteria selected by the buyers. This was covered in Unit 2, Lesson 5, page 41.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
3	3	What's a key consideration when evaluating online transaction management software?	Whether your competition is using it	Whether electronic documents are legal	The amount of software already has	How easy it is for clients to use	A4	The software should be easy enough for even technologically challenged clients to use. This was covered in Unit 3, Lesson 1, page 44.	Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.
3	3	A digital signature _____.	Carries less weight than one in ink.	Carries more weight than one in ink.	May not be used to transfer interest in real property.	Has the same legal weight as one in ink.	A4	Electronic signatures have been legally recognized at a national level since the 2000 enactment of the Electronic Signatures in Global and National Commerce Act (ESIGN). This was covered in Unit 3, Lesson 1, page 45.	Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.
3	3	What major impact did the ESIGN act have on digital signatures?	It made them illegal.	It made them more valid than traditional signatures written in ink.	It gave them the same legal weight as signatures written in ink.	It made them legal for all purposes, except for the transfer of any interest in real property.	A3	Electronic signatures have been legally recognized at a national level since the 2000 enactment of the Electronic Signatures in Global and National Commerce Act (ESIGN). This was covered in Unit 3, Lesson 1, page 45.	Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.

Unit #	Difficulty Level (1-3)	Question	A1	A2	A3	A4	Correct Answer	Feedback	Course Objective
3		ESIGN requires that consumers _____ before electronic records can be used in the same way hard _____ copy counterparts may.	Affirmatively consent to their use	Have their signatures notarized	Have their signatures recorded	Provide 10 legible copies of their handwritten signature	A1	The act requires that a consumer affirmatively consent before electronic records can be used to provide them with information that, under other law, must be available to them in hard copy, written form. This was covered in Unit 3, Lesson 1, page 46.	Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.
3		ESIGN requires that, before consumers consent to the use of electronic documents, they must be provided with a "clear and conspicuous statement" that discloses _____.	That the documents may not be legally enforceable	How they may withdraw their consent	Where to have their signatures notarized	How their documents will be filed	A2	Among other items, the statement must disclose the consumer's right to have the record provided on paper and revoke consent. This was covered in Unit 3, Lesson 1, page 45.	Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.
3		If you're obtaining consumer consent to use electronic documents in a transaction, you must obtain the consumer's signature _____.	In ink, in writing	Electronically	From a notary	In view of two witnesses	A2	The consumer's consent must be obtained or confirmed electronically (not just on paper). This was covered in Unit 3, Lesson 1, page 46.	Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.
3		Which of the following is a true statement about electronic documents and e-signatures?	They're becoming more common, though they're still illegal.	They're rarely used.	Most consumers prefer hard copy signatures and paperwork.	Prior consent is required.	A4	Electronic signatures carry the same legal weight as hard copy documents, and are more common now than hard copy documents. Their acceptance by consumers is widespread, but prior consent is required. This was covered in Unit 3, Lesson 1, page 45.	Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.
3		CRM software is used by agents to _____.	Evaluate properties for comparison purposes	File taxes	Organize contacts	Crunch numbers	A3	Agents use contact relationship management software (CRM) to store, organize, group, and recall any contact information. This was covered in Unit 3, Lesson 2, page 48.	Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.
3		Most CRM software consists of three basic features: address books, _____, and _____.	Communication tools	a CMA application	Demographics	Label makers	A1	These features create the basis for CRM software and allow you to work with hundreds, if not thousands of contacts and their pertinent information. This was covered in Unit 3, Lesson 2, page 48.	Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.
3		The most important, defining feature of CRM software is _____.	Video	The address book	The label maker	The accounting software	A2	Address books are simple in design, but allow for wide flexibility. This was covered in Unit 3, Lesson 2, page 49.	Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.

Unit #	Difficulty Level (1-3)	Question	A1	A2	A3	A4	Correct Answer	Feedback	Course Objective
3	2	Likely, you'll spend most of your time with CRM software on _____.	Video production	Data entry	Number crunching	CMA production	A2	The majority of your time spent using the software will be entering new information. By entering all of your contact information into a CRM system, you create a searchable database from which you can pull up data on the fly. This was covered in Unit 3, Lesson 2, page 49.	Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.
3	2	What's the primary advantage to storing documents on the cloud?	No advertising	Saves room on your hard drive	You can access data from anywhere	Easier printing	A3	Cloud storage allows you to access your documents, files, photographs, and other important content with just a few clicks from any device, and from anywhere you can get internet access. This was covered in Unit 3, Lesson 3, page 51.	Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.
3	2	Which of the following is a free tool created by Evernote that allows you to mark up digital photos?	Dropbox	CamScanner	Skitch	GoogleAlerts	A3	For example, you're touring a home with your buyers, and notice a dark stain on the ceiling. You snap a photo with your smart phone, and using Skitch, you draw a circle around the problem area on the photo (or place an arrow pointing to it), then send the photo to the listing agent asking for an explanation. This was covered in Unit 3, Lesson 3, page 53.	Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.
3	2	Which of the following technology tools allows you to share data within a secure, cloud-based system?	Dropbox	Evernote	CamScanner	Skitch	A1	Other cloud storage options are Box and Google Drive. This was covered in Unit 3, Lesson 3, page 51.	Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.
3	2	This technology tool allows you to convert a photo of a document from a smartphone to a PDF.	Dropbox	Evernote	CamScanner	Skitch	A3	Like many apps, CamScanner is available in both free and feature-enhanced paid versions. This was covered in Unit 3, Lesson 3, page 53.	Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.
3	2	This technology tool allows you to mark up digital photos to point out features or issues.	Dropbox	Evernote	CamScanner	Skitch	A4	Skitch is a free tool created by Evernote. This was covered in Unit 3, Lesson 3, page 53.	Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.

Technology Tools, Trends, and Risk Management: Elective Course – Unit and Final Exam Banks

Unit #	Difficulty Level (1-3)	Question	A1	A2	A3	A4	Correct Answer	Feedback	Course Objective
3		What does Sketch, a free tool created by Evernote, allow you to do?	Program your drone	Mark up digital photos	Populate MLS	Store data in the cloud	A2	Sketch is a free tool created by Evernote. This was covered in Unit 3, Lesson 3, page 53.	Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.
3		Transactional management software allows licensees to conduct entire transactions online, including gathering _____ signatures.	Electronic	Ink	Notarized	Invisible	A1	Consumer permission is required prior to accepting electronic signatures. This was covered in Unit 3, Lesson 1, page 45.	Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.
4		Which of the following is true about online risk?	It's becoming less of an issue.	Anti-virus software is enough to eliminate all risk.	You can be held liable if your client's data is compromised.	Malware, but not viruses, are the real issue.	A3	State law can require you to have a data protection policy to protect your client's data online, and you can be fined—even lose your license—if you fail to comply. This was covered in Unit 4, Lesson 1, page 56.	Describe technological advances that keep online data secure.
4		Martinique kept client data online, and the data was compromised, and her clients' information ended up in the hands of cyber criminals. What's true about this situation?	Provided	Martinique can be fined, or lose her license if she failed to take adequate safety measures to protect her clients' data.	If the data was kept in a cloud, Martinique is in the clear.	Martinique faces a possible prison sentence.	A2	State law can require you to have a data protection policy to protect your client's data online, and you can be fined—even lose your license—if you fail to comply. This was covered in Unit 4, Lesson 1, page 56.	Describe technological advances that keep online data secure.
4		According to a report by National Association of REALTORS® attorney, Jessica Edgerton, what percentage of small businesses whose security was breached due to cyber crime go out of business within six months?	10%	20%	60%	80%	A3	Sixty percent of small businesses victimized by a successful cybersecurity breach go out of business within six months. This was covered in Unit 4, Lesson 1, page 56.	Describe technological advances that keep online data secure.
4		Which of the following is a recommended risk prevention measure for licensees when conducting?	Shred personally identifiable information when it's no longer needed.	Don't keep backup copies of anything.	Use email for document storage.	Attach documents containing sensitive information to email rather than using a document sharing platform.	A1	Shred personally identifiable information (PII) when it's no longer needed. This includes first and last name, Social Security number, state ID or driver's license number, bank account and credit card information. This was covered in Unit 4, Lesson 1, page 56.	Describe technological advances that keep online data secure.

Unit #	Difficulty Level (1-3)	Question	A1	A2	A3	A4	Correct Answer	Feedback	Course Objective
4		If they contain sensitive information, they should be sent by email rather than using a document sharing platform.	You shouldn't open links that are suspicious, even on a smart phone.			If you don't recognize the sender, forward the email to your phone, and open it there.	A1	In addition to never opening links or emails that are suspicious, employ the same safety measure with text messages. Make sure your cellular provider includes data encryption. This was covered in Unit 4, Lesson 1, page 57.	Describe technological advances that keep online data secure.
4		When a new version comes out	When prompted	Monthly	At least annually		A2	Update your operating system when prompted. These updates often have up-to-the-minute security measures. This was covered in Unit 4, Lesson 1, page 56.	Describe technological advances that keep online data secure.
4		For best online security, when should you update your operating system?		Monthly	At least annually		A2		Describe technological advances that keep online data secure.
4		Rayna is a new licensee who wants to be safe online. What advice should you give her?	"Save all email in perpetuity on your email server."	"Avoid updating operating software, if the attachment contains sensitive data."		"If you receive a suspicious email, don't open it."	A4	Don't open suspicious emails or click on suspicious links. This is a common way to send viruses. This was covered in Unit 4, Lesson 1, page 57.	Describe technological advances that keep online data secure.
4		Antivirus software that protects against malware	Code that encrypts a user's data, holding it hostage	Wire fraud		Identification theft	A2	By clicking on a link, the victim accidentally sets off code that encrypts their data, which is then held for ransom. This was covered in Unit 4, Lesson 1, page 58.	Describe technological advances that keep online data secure.
4		Where are computer users most vulnerable to cyber criminals?	Cloud storage	Email	CRM software	Word processing applications	A2	Email is the area of most vulnerability due to attachments and links that contain malware and viruses. This was covered in Unit 4, Lesson 2, page 60.	Describe technological advances that keep online data secure.
4		What's one way experts recommend to protect email from hackers?	Use a password of 26 characters or more	Avoid the use of symbols in a password	Change your password at least annually	Open, but don't forward, suspicious emails	A1	A password of at least 26 characters is actually safer than a shorter one that has a combination of capital letters, lowercase letters, and symbols. This was covered in Unit 4, Lesson 2, page 60.	Describe technological advances that keep online data secure.
4		To make sure all data between your browser and Gmail are encrypted, Google has enabled _____ security by requiring it as a default.	Two-step authentication	Anti-virus	Phishing	https	A4	When using Gmail, make sure "www.gmail.com" begins with https:// (and not just "http://"). This ensures that you have a secure connection and more protection against snooping or tampering. This was covered in Unit 4, Lesson 2, page 60.	Describe technological advances that keep online data secure.
4		Which of the following is true about email security?	Two-step authentication is unnecessary.	Email should be used to store important communication.	Licensees should keep a copy of every email sent and received in the transaction file.	When sensitive data is sent by email, you should include "https" in the subject line.	A3	If you consult your brokerage's attorney about this, you'll likely hear that if it's in writing in any form, it's important enough to keep. You should be filing a copy of every received and sent email for a transaction. This was covered in Unit 4, Lesson 2, page 61.	Describe technological advances that keep online data secure.

Technology Tools, Trends, and Risk Management: Elective Course – Unit and Final Exam Banks

Unit #	Difficulty Level (1-3)	Question	A1	A2	A3	A4	Correct Answer	Feedback	Course Objective
4	4	Subscription services such as yesware, contactmonkey, and boomerang provide _____.	Anti-virus protection	Email tracking	Email archiving	Encryption	A2	The benefits of tracking every email for legal and marketing capabilities are numerous. This was covered in Unit 4, Lesson 2, page 61.	Describe technological advances that keep online data secure.
4	4	Which of the following describes a hybrid cloud?	Proprietary architecture dedicated to a single organization	Available to anyone with a password, individuals and large companies alike	One shared with more than one organization or consumers who have a shared goal or interest	Some information is held within a cloud, but combined with exchange servers within a private company	A4	Office 365 offers this capability. This was covered in Unit 4, Lesson 3, page 64.	Describe technological advances that keep online data secure.
4	4	What's a community cloud?	One offered by a municipality or local government	One offered by a fraternal organization	One offered by a nonprofit	One shared by those with shared goals or interests	A4	A community cloud is one shared with more than one organization or consumers who have a shared goal or interest. It may be managed by one of the organizations, or a third party. This was covered in Unit 4, Lesson 3, page 64.	Describe technological advances that keep online data secure.
4	4	Before jumping in to cloud computing, you should _____.	Use a symbol in your password	Ask for admin privileges	Run a background check on cloud provider personnel	Encrypt data before uploading it	A4	Encryption may be provided by the cloud computing provider. If not, do it yourself. This was covered in Unit 4, Lesson 3, page 64.	Describe technological advances that keep online data secure.
4	4	What does a service level agreement do when working in a cloud environment?	Discounts fees	Defines what's being provided	Requires regular backups	Automates software applications	A2	A service level agreement (SLA) covers security and compliance requirements within the cloud environment, specifying what's the responsibility of the user, and what services will be provided. This was covered in Unit 4, Lesson 3, page 66.	Describe technological advances that keep online data secure.
4	4	Compared to enterprise storage, cloud storage is _____.	More vulnerable to attack	Less vulnerable to attack	Equally vulnerable to attack	Impenetrable	A3	Because cyber attacks are opportunistic in nature, anything that can possibly be accessed from outside has equal chance of being attacked. This was covered in Unit 4, Lesson 3, page 66.	Describe technological advances that keep online data secure.
5	5	According to its 2016 survey, the National Association of REALTORS®, the use of agents by buyers since 1981 has _____.	Halved	Reduced, but just barely	Risen	Stayed the same	A3	The survey found that the percentage of buyers who use real estate agents has risen—from 81% in 1981 to 87% in 2016. This was covered in Unit 5, Lesson 1, page 69.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	5	A wise licensee, prior to employing the latest technology tool, will _____.	Hire a software developer	Take a class in coding	Check to see what's most current	Get the basics down, such as a website	A4	Licensees should ensure they have the basics down cold before going too far into the whiz-bang technology world. This was covered in Unit 5, Lesson 1, page 69.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	5	As a real estate professional, what should you do before you jump on that latest technology tool?	Hire a professional to teach you how to use .	Hire a professional to teach you how to use .	Learn basic hand coding.	Avoid new technology; it's a flash in the pan.	A2	Licensees should ensure they have the basics down cold before going too far into the whiz-bang technology world. This was covered in Unit 5, Lesson 1, page 69.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.

Technology Tools, Trends, and Risk Management: Elective Course - Unit and Final Exam Banks

Unit #	Difficulty Level (1-3)	Question	A1	A2	A3	A4	Correct Answer	Feedback	Course Objective
5	2	What does leverage mean, when it comes to technology tools for your business?	It's part of the overall marketing plan.	You're making good use of it by connecting to it through other means.	There's a way to determine its effectiveness.	It's been optimized for search engines.	A2	Examples include linking a YouTube video to an email newsletter. This was covered in Unit 5, Lesson 1, page 73.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	What does locatable mean in terms of your online presence?	You can find it on a map.	There's a way to determine its effectiveness.	It's been optimized for search engines.	You've given viewers a reason to come back.	A3	Unless your market can find it, you're wasting your time and energy. This was covered in Unit 5, Lesson 1.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	What does measurable mean in terms of your online activities?	It's part of the overall marketing plan.	There's a way to determine its effectiveness.	It's been optimized for search engines.	You've given viewers a reason to come back.	A2	Examples include click rates, leads generated, "likes," number of subscribers, etc. This was covered in Unit 5, Lesson 1, page 73.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	What's the point of making sure your online content is current?	It helps search engine positioning.	There's a way to determine its effectiveness.	You're making good use of it by connecting to it through other means.	You've given viewers a reason to come back.	A4	Updates, and regular communication are key here. This was covered in Unit 5, Lesson 1, page 73.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	What's Active Rain?	Anti-virus protection	A search engine optimization gateway	A neighborhood social gathering place online	A real estate networking site	A4	This is a real estate networking site for those in the biz, and it has more than 300,000 members. Membership is free, and it's easy to create profile and begin interacting with the community. This was covered in Unit 5, Lesson 2, page 74.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	What's Nextdoor?	Antivirus software that protects against malware	A search engine optimization gateway	A neighborhood social gathering place online	A real estate networking site	A3	This is a private neighborhood social media sites. Sign up for the neighborhood you live in or target, provide good local content, and stay in the know. Don't try to market yourself here. You'll get banned or booted. This was covered in Unit 5, Lesson 2, page 75.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	What are the three big social media sites for real estate agents?	Reddit, LinkedIn, Twitter	Facebook, Reddit, Twitter	Instagram, Facebook, Reddit	Facebook, Instagram, Twitter	A4	These are the big three for real estate agents, but don't feel you have to be on all three. Only take on what you're willing to keep up with. Note that, because Instagram is an app, the link takes you to a place where you can log in to see posts. To use Instagram, you need to download the app. This was covered in Unit 5, Lesson 2, page 75.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	What's Pinterest?	A neighborhood social networking site	Anti-virus software	A job sharing site	A place to post photos and other content	A4	It's primarily used by real estate licensees to drive traffic to your website or other social media sites. You post images, ideas, videos, and content you like on your board, and share these with your followers. This was covered in Unit 5, Lesson 2, page 75.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	Which social media site is specifically geared toward real estate professionals?	LinkedIn	Active Rain	Pinterest	Facebook	A2	Active Rain is a real estate networking site for those in the biz, and it has more than 300,000 members. This was covered in Unit 5, Lesson 2, page 74.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.

Unit #	Difficulty Level (1-3)	Question	A1	A2	A3	A4	Correct Answer	Feedback	Course Objective
5	2	Which of the following is a private neighborhood site?	NextDoor	Active Rain	Pinterest	Fences	A1	This is a private neighborhood social media sites. Sign up for the neighborhood you live in or target, provide good local content, and stay in the know. Don't try to market yourself here. You'll get banned or booted. This was covered in Unit 5, Lesson 2, page 75.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	What's a social media management platform?	A way to keep social media content ethical	A way to prevent spamming on social media	A way to organize social media activity	A way to prevent hacking of social media	A3	Social media management platforms, such as Buffer, HootSuite, Hubspot, and TweetDeck can help you organize, schedule, link, repurpose, and maximize your social media activity. This was covered in Unit 5, Lesson 2, page 77.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	Social media schedulers allow you to _____.	Avoid publishing at the same time as your competition	Keep track of your competition on social media	Limit your social media activity	Write several posts at once to appear later	A4	Social media schedulers allow you to write all of your posts at once and then schedule them to publish at certain times of the day on certain days. You can also use them to track the analytics of your posts, discover which content performs best with your target audience, and the time and day when most engagement occurs. This was covered in Unit 5, Lesson 2, page 77.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	What tool can you use to create several social media posts and time them to appear at prescribed times?	Pinterest	Hootsuite	Localism	TimetoPost	A2	Social media schedulers allow you to write all of your posts at once and then schedule them to publish at certain times of the day on certain days. You can also use them to track the analytics of your posts, discover which content performs best with your target audience, and the time and day when most engagement occurs. This was covered in Unit 5, Lesson 2.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	Buffer, HootSuite, Hubspot, and TweetDeck are all examples of _____.	Social media sites	Anti-virus software	Cyber crimes	Social media schedulers	A4	Social media schedulers allow you to write all of your posts at once and then schedule them to publish at certain times of the day on certain days. You can also use them to track the analytics of your posts, discover which content performs best with your target audience, and the time and day when most engagement occurs. This was covered in Unit 5, Lesson 2, page 77.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	Which social media tool helps you organize your YouTube videos?	Active Rain	Hootsuite	Vidcaboodle	HootSuite	A3	Vidcaboodle helps you organize your YouTube videos into categories on a visually pleasing channel page. This was covered in Unit 5, Lesson 2, page 77.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	Which application was originally not embraced by adults, but is now being hailed by some as "The Facebook of the Future"?	Instagram	Pinterest	Snapchat	LinkedIn	A3	Although Snapchat has been around a few years, it wasn't embraced by adults (those over age 18) until fairly recently, and it's still not seen widespread use among real estate licensees. However, some licensees are hailing it as the Facebook of the future. This was covered in Unit 5, Lesson 3, page 78.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.

Unit #	Difficulty Level (1-3)	Question	A1	A2	A3	A4	Correct Answer	Feedback	Course Objective
5		Let's say you were bored one day and decided to view all the photos shared on Snapchat in the past hour. How long would it take you?	10 hours	24 hours	A year	10 years	A4	That's a lot of photos. This was covered in Unit 5, Lesson 3, page 78.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5		How are licensees using Snapchat?	As antivirus protection	As a CMA add-on	To engage an audience	To schedule their other social media posts	A3	While a portion of all photos, videos, and stories (a number of photos or videos linked together) shared are industry-specific, licensees also use them to cover neighborhood hot spots, great local hikes, and local events. This was covered in Unit 5, Lesson 3, page 78.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5		How do people find you on Snapchat?	Using its built-in locator	By searching on Google	By using your snap code	By following your board	A3	Snapchat doesn't have a locator within the application itself. So people have to know your snap code or user name to find and follow you. This was covered in Unit 5, Lesson 3, page 78.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5		What's a Snapchat geofilter?	A free addition that's location-specific	An overlay that costs money	A way to see where your audience is coming from	A smart app that screens out hackers	A2	A geofilter is an overlay that's location- or event-specific. Center it around an event, such as a parade, and your followers may share it with others. Geofilters aren't free. This was covered in Unit 5, Lesson 3, page 79.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5		Which of the following is a true statement about Snapchat?	It's designed specifically for real estate agents.	It's available only by subscription.	It has nearly 200 million daily users.	It's widely used by the real estate community.	A3	As of August 2017, the daily user tally was 173 million. It's not in wide use in real estate (yet), and is a free app. This was covered in Unit 5, Lesson 3, page 78.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5		As a licensee, your unique value proposition is _____.	Your website	The data between your ears	The technology tools you employ	The reduced fees you charge	A2	Your unique value proposition is the data between your ears, and the data at your fingertips. This was covered in Unit 5, Lesson 4, page 81.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5		Which of the following is an email add-on that displays social media information about contacts inside your email box?	HootSuite	TootSuite	TweetFeed	Rapportive	A4	This allows you to monitor social media posts without having to be on social media. This was covered in Unit 5, Lesson 4, page 81.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5		Which of the following allows you to schedule an email drip campaign in advance?	HootSuite	TootSuite	Boomerang	Rapportive	A3	Boomerang is an email scheduler. This was covered in Unit 5, Lesson 4, page 81.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5		Sandi sent her client an email: Saw your adorable puppy you posted on Facebook today! Sandi hasn't been on social media all day. What technology tool may have allowed her to do this?	HootSuite	Rapportive	Boomerang	TweetFeed	A2	This allows you to monitor social media posts without having to be on social media. This was covered in Unit 5, Lesson 4, page 81.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5		When it comes to videos _____ is better.	Longer	Shorter	Louder	Grainier	A2	Shorter is better. Try to keep it under two minutes if at all possible. This was covered in Unit 5, Lesson 5, page 83.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5		According to Hubspot, what percentage of videos under 90 seconds retained its audience in 2016?	10%	25%	53%	85%	A3	Videos under 90 seconds retained 53% of the audience to the end. This was covered in Unit 5, Lesson 5, page 83.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.

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Unit #	Difficulty Level (1-3)	Question	A1	A2	A3	A4	Correct Answer	Feedback	Course Objective
5	2	Twitter's livestream app is called _____.	TwitterLive	Periscope	Perch	ORM	A2	Periscope is a livestream app that allows users to post live videos up to two minutes, 20 seconds in their Twitter feeds. This was covered in Unit 5, Lesson 5, page 84.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	Facebook's livestream is called _____.	Facebook Live	Periscope	FBTV	SnapBook	A1	Facebook Live is a livestreaming tool built into the social media platform. This was covered in Unit 5, Lesson 5, page 84.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	Virtual headsets allow prospective buyers to _____.	Filter noise	listen to music as they tour a home	Virtually tour a property	Meet their neighbors via Skype	A3	For instance, a construction firm may build a portion of a dwelling, such as a living room and kitchen, and then provide buyers with virtual reality headsets (e.g., Google Cardboard) so they can "tour" the units in virtual reality, walking around the space, looking out windows to see the view (provided by drone technology). This was covered in Unit 5, Lesson 6, page 86.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	Virtual reality is touching many aspects of real estate. This even includes _____.	Real estate agents	Homes	Showings	Funds	A3	Using virtual reality headsets and mockups of buildings, this is now possible. This was covered in Unit 5, Lesson 6, page 86.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	If furniture is already there, you can't replace it.		Buyers will tour the home without the virtual furniture in place.		The photos can't be used on the MLS.	A2	Obviously, the property won't be staged when the buyers show up, but virtual staging photos can be left onsite to show buyers what the home could look like when appropriately "attired." This was covered in Unit 5, Lesson 6, page 87.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	You're trying to decide between virtual staging and traditional staging for your client's house. About how much will virtual staging save you?	10%	25%	50%	90%	A4	Virtual staging costs about 10% of what traditional staging costs. This was covered in Unit 5, Lesson 6, page 87.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	What does a "responsive" website mean?	It loads quickly.	It uses one design that works well across all platforms.	It's "sticky," keeping visitors engaged and coming back.	It changes, depending on which device is used to access it.	A4	If you open it on your mobile device, built-in code magically transforms it, optimizing it for a smaller screen. This was covered in Unit 5, Lesson 7, page 88.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	What does "scalable" mean for an application?	It's mobile-friendly.	It loads quickly.	It's available as either a free or paid version with added features.	It has built-in visitor analytics.	A1	Scalable means mobile-friendly. This is one design that works well across both platforms (desktop and mobile). They require no magic code, and appear the same, just scaled down for the smaller device. This was covered in Unit 5, Lesson 7, page 88.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	How is artificial intelligence most often used in real estate?	Anti-virus protection	Social media scheduling	Chatbots	Preparing CMAs	A3	When the user poses a question, the chatbot returns an appropriate answer, often channeling the conversation in the most appropriate direction. This was covered in Unit 5, Lesson 8, page 90.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.

Unit #	Difficulty Level (1-3)	Question	A1	A2	A3	A4	Correct Answer	Feedback	Course Objective
5	2	What form of AI (artificial intelligence) is most commonly used in real estate?	Narrow	General	Super	Supra	A1	Narrow AI performs specific repetitive or mundane tasks. Over time, as it gets better at each task by gathering data from the interactions, AI can perform better than a human being at the same task. This was covered in Unit 5, Lesson 8, page 90	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	Super intelligence is a form of artificial intelligence that _____.	is human intelligence, only better	Is used primarily in space flight	Has limited use in real estate	Is used to drive real estate transactions	A1	Although only theoretical at this point, super intelligence is a form of artificial intelligence that mimics human intelligence, but is better. This was covered in Unit 5, Lesson 8.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	For now, 100% of AI (artificial intelligence) in use in real estate today _____.	Narrow	Super	General	Supra	A1	Narrow AI performs specific repetitive or mundane tasks. Over time, as it gets better at each task by gathering data from the interactions, AI can perform better than a human being at the same task. This was covered in Unit 5, Lesson 8, page 90.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	Chatbots can also be contextual. This _____ means they can _____.	Go beyond answering questions to make user suggestions	Advise users on legal issues	Create text online	Answer questions	A1	Contextual chatbots help users by going beyond answering questions to also make suggestions and recommendations based on the user's input. They're called contextual because they're based on not just understanding the user's question, but the context of the chat. This was covered in Unit 5, Lesson 8, page 92.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	When a chatbot can merely answer _____ questions, it's _____.	Stupid	A basic AI chatbot	Contextual	Similar to a virtual assistant	A2	Contextual chatbots can make unprompted suggestions. The personal assistant type chatbot connects with external applications. This was covered in Unit 5, Lesson 8, page 92.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
5	2	What type of chatbot can connect with other applications when assisting _____ a user?	A robot capable of super intelligence	A general chatbot	A contextual chatbot	An AI personal assistant chatbot	A4	Contextual chatbots can make unprompted suggestions. The personal assistant type chatbot connects with external applications. This was covered in Unit 5, Lesson 8, page 92.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
Final	3	Which of the following is a photo editor that can be used by real estate agents?	Snapseed	Matterhorn	HubSuite	HootTop	A1	Example photo editors include Photoshop, Snapseed, SKRWT, and TouchRetouch. This was covered in Unit 1, Lesson 1, page 6.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
Final	2	Which software application creates a "doll house" effect, allowing viewers to see the entire home from above _____ and at various angles?	Snapseed	Matterhorn	Photoshop	They offer less insight into a property than traditional photos.	A2	It allows the buyer to "fly through" the house in virtual reality, providing a true picture of the space, including the relationship of the rooms, doors, windows, and hallways. This was covered in Unit 1, Lesson 1, page 6.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
Final	3	Which of the following is true about a _____ video walk-through of a property?	These may only be produced by sellers.	These can't be uploaded to YouTube.	They offer less insight into a property than traditional photos.	They can be done with a smartphone.	A4	Video walk-throughs can be done with a high-quality smartphone or even a drone. You can also hire out this service (either a videographer or drone photographer). This was covered in Unit 1, Lesson 1, page 7.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.

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Unit #	Difficulty Level (1-3)	Question	A1	A2	A3	A4	Correct Answer	Feedback	Course Objective
Final	3	Your seller left this laundry on the floor, and you didn't notice it until you were getting ready to upload the photo to the MLS. What technology tool can help edit this out?	Livestream	Snapseed	Facebook	Twitter/Snip	A2	Snapseed, or other photo editing software, can be used to correct photo errors, improve lighting, composition, or for some cool visual effects. This was covered in Unit 1, Lesson 1, page 6.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
Final	2	How are drones commonly used in real estate?	Skywriting	Dropping flyers	To enable better satellite connection	Aerial video	A4	A drone is an unmanned aerial vehicle that's sometimes used in real estate to take aerial photography and video. This was covered in Unit 1, Lesson 2, page 10.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
Final	3	Commercial drones may be flown at twilight only if _____.	They're equipped with infrared	They're equipped with anti-collision lights	They're flown in commercial (non-residential) areas	They're flown above 400 feet	A2	In general, commercial drones are only allowed to be flown during the day. Twilight flying is allowed only if the drone is equipped with anti-collision lights. This was covered in Unit 1, Lesson 2, page 11.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
Final	3	What's the required of a commercial drone operator?	A pilot's license	An aeronautical test and background check	Be at least age 21, pass a background check, and a pilot's license	Be at least age 18, pass a background check and an aeronautical knowledge test	A2	Commercial drone operators must be at least 16 years old, pass an aeronautical knowledge test in an FAA-approved facility, and pass a background check to qualify for a remote pilot certificate. This was covered in Unit 1, Lesson 2, page 11.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
Final	3	Which of the following locations would a drone likely NOT be appropriate for?	Properties surrounded by trees	Large lots	Properties near vistas	Estate property	A1	Drones are generally not appropriate for small spaces (such as condos) or properties surrounded by trees or taller buildings. This was covered in Unit 1, Lesson 2, page 12.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
Final	3	An easy way to help a prospective homebuyer visualize the flow of a property is to provide _____.	Multiple photos	An appraisal	A floorplan	Remodeling invoices	A3	Some buyers are concerned with room flow, proximity, privacy, and layout. An easy way to provide this information is with a floorplan. This was covered in Unit 1, Lesson 3, page 12.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
Final	3	You're talking to Janice, a new licensee, who says she'd like to include the floorplan of her new listing on her MLS posting. What do you tell her?	That would be unethical.	MLS rules don't allow that.	You can add it as a link, but that could hurt your chances for a sale.	You can add it as a photo, or possibly as an additional document.	A4	It's straightforward adding a floor plan to your MLS listing—either attach it as an additional document, or use it as one of your allowed photos. This was covered in Unit 1, Lesson 3, page 15.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
Final	2	A floorplan sketcher will likely charge _____.	\$100-\$250	\$300-\$400	\$500-\$1,000	\$1,000 and up	A2	Floorplan sketches can generally be obtained for \$100-\$250. This was covered in Unit 1, Lesson 3, page 16.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
Final	2	Buyers are often interested in _____, which floorplans can illustrate.	Furnishings and artwork	Accessories and rugs	Flow and layout	Colors and textures	A3	Floorplans show flow, layout, and room proximity and size. This was covered in Unit 1, Lesson 3, page 14.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.

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Unit #	Difficulty Level (1-3)	Question	A1	A2	A3	A4	Correct Answer	Feedback	Course Objective
Final	2	Transactional management software allows licensees to conduct entire transactions online, including gathering _____ signatures.	Notarized	Electronic	Invisible	Typed	A2	Consumer permission is required prior to accepting electronic signatures. This was covered in Unit 3, Lesson 3, page 46.	Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.
Final	3	Your real estate colleague asks you if you're concerned about online risk. What do you say?	You can be held liable if your client's data is compromised.	Malware, but not viruses, are the real issue.	It's becoming less of an issue.	Anti-virus software is enough to eliminate all risk.	A1	State law can require you to have a data protection policy to protect your client's data online, and you can be fined—even lose your license—if you fail to comply. This was covered in Unit 4, Lesson 1, page 56.	Describe technological advances that keep online data secure.
Final	3	The National Association of REALTORS® has integrated its REALTORS® Property Resource function with its SentriloLock boxes equipped with the _____ app to provide on-the-spot answers to client questions.	Marketing	SentriloSmart	GoVision	Chatbot	A2	The National Association of REALTORS® has integrated its REALTORS® Property Resource function with the SentriloLock lock boxes equipped with the SentriloSmart app to provide on-the-spot answers to client questions. This was covered in Unit 1, Lesson 4, page 56.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
Final	3	You're working with a new buyer. Which of the following is a true statement about buyer financing?	Lowest interest rates means lowest overall costs.	Often, a lender's low interest rate is offset by added costs to finance the loan.	Most loans are essentially the same, because they're based on a buyer's credit score.	The Loan Estimate form makes it more difficult for buyers to compare loans. Provide them with demographics for the neighborhood.	A2	Loan comparison apps can help take the guesswork out of financing costs, and the Loan Estimate is formatted to make this comparison simpler. This was covered in Unit 2, Lesson 2, page 31.	Describe how to use technology to secure buyer representation agreements; assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
Final	3	As a buyer agent, how might you best use Google Earth to assist buyers?	Show them great vacation destinations.	Provide them with additional interior shots.	Provide a 3D look at the property and its setting.	Slip it under the agency disclosure and have them sign it without reading it.	A3	Google Earth provides a 3D look at the property, its surroundings, its proximity to other residences, freeways, and industry. This was covered in Unit 2, Lesson 3, page 34.	Describe how to use technology to secure buyer representation agreements; assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
Final	3	What's the best way to ensure you get a signed buyer representation agreement with the buyer?	Explain that without one, the buyer is unrepresented.	Explain that without one, the buyer will owe you your fee anyway.	Show the buyer the law: Agents may only assist buyers if they've signed a buyer representation agreement.	Slip it under the agency disclosure and have them sign it without reading it.	A1	Without a signed buyer representation agreement, the buyer is unrepresented. Many buyers don't know this. This was covered in Unit 2, Lesson 1, page 28.	Describe how to use technology to secure buyer representation agreements; assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
Final	2	What's phishing?	Scammers pretend to be someone involved in a transaction, and tell buyers that there was a change to wiring instructions.	When a victim clicks on a link, ad, or attachment, a bot encrypts the victim's data, which is then held for ransom.	A caller will pretend to be a technical support person and ask for remote control of your computer to fix an alleged virus.	When a user clicks on a link, the spammer gains access to the computer and data.	A4	It may happen through a link, popup, or instant message. This was covered in Unit 4, Lesson 1, page 58.	Describe technological advances that keep online data secure.

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Unit #	Difficulty Level (1-3)	Question	A1	A2	A3	A4	Correct Answer	Feedback	Course Objective
Final	3	What's a two-step authentication process for email?	You enter both user name and password to access your account.	After you enter your password, you receive a verification code that you must enter to access your account.	You enter your user name, enter the wrong password, then correct password when prompted.	You log in to your computer, then you log in to email.	A2	When this feature is enabled, when you log onto your Gmail account using your username and password, before you can access your account, a code is sent to your cell phone via a text message that you must enter. This was covered in Unit 4, Lesson 2, page 60.	Describe technological advances that keep online data secure.
Final	3	Which of the following technology tools would be considered foundational to a real estate licensee?	Website, CRM, CMA software, MLS	Drone, video, MLS, Email newsletter	SEO, CMS, CPM, and CRA	Facebook, LinkedIn, Reddit, and NewsHound	A1	Other foundational basics include Facebook pages and ads, blogs and e-newsletters, SEO, neighborhood pages, Facebook, YouTube, and possibly Instagram. This was covered in Unit 5, Lesson 1, page 70.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
Final	2	When it comes to MLS photos	They're largely ineffective	Very few buyers look at them	A professional photographer is required	if they're not quality, they do sellers a disservice	A4	If you lack photography skills and appropriate equipment, hire a professional photographer. This was covered in Unit 1, Lesson 1, page 5.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
Final	3	Which of the following technology tools is known for video emails?	HootSuite	BombBomb	Boomerang	Rapportive	A2	BombBomb is a video email application. This was covered in Unit 5, Lesson 4, page 81.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
Final	3	Zapier can be used to	Automate work flow	Monitor social media sites	Schedule emails	Crunch numbers	A1	Zapier connects apps and automates workflow. This was covered in Unit 5, Lesson 4, page 81.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
Final	3	According to Hubspot, in 2016, what percentage of videos over 30 minutes retained its audience to the end?	10%	No more than 30 minutes long	Short-about two minutes long	75%	A1	Videos over 30 minutes retained 10% of the audience to the end. This was covered in Unit 5, Lesson 5, page 83.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
Final	2	In general, you should make sure your videos used for real estate are	Produced by a professional	30 minutes long	Short-about two minutes long	Spontaneous	A3	Shorter, well planned videos are most effective, but it's not necessary to hire a professional video producer. This was covered in Unit 5, Lesson 5, page 83.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
Final	2	What's virtual staging?	The same as a virtual tour	Photos of a home with the furniture and accessories replaced	A homebook, available online	A rental company that brings in furniture and accessories within 24 hours	A2	With virtual staging, you can add artwork, furniture, and accessories to show how the home could look fully equipped; photos are then created. This was covered in Unit 5, Lesson 6, page 87.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
Final	2	In technology, what's UX?	An operating system	A service agreement	A user interface	A unit of measurement	A3	User experience (UX) is key to engagement. This was covered in Unit 5, Lesson 7, page 88.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
Final	3	To be mobile friendly means that an app, email message, or website is	Free	Scalable	Responsive	Responsive or scalable	A2	Responsive isn't considered mobile-friendly, because it creates two different versions of the interface. It may need to hide or swap user touch points, such as buttons, to work on a mobile device. A scalable interface works the same across all platforms. This was covered in Unit 5, Lesson 7, page 89.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.

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Unit #	Difficulty Level (1-3)	Question	A1	A2	A3	A4	Correct Answer	Feedback	Course Objective
Final	3	In real estate, general artificial intelligence _____.	Is primarily used in chatbots	Is primarily used in virtual reality	Isn't used	Performs mundane tasks	A3	This version of AI remains mostly science fiction. This was covered in Unit 5, Lesson 8, page 90.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
Final	2	What's a chatbot?	An online user group	A social media site	A robot capable of super intelligence	A computer-simulated conversation	A4	Chatbots simulate conversation by answering questions posed by human users. This was covered in Unit 5, Lesson 8, page 90.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
Final	3	What type of chatbot could make suggestions, but couldn't leave the current application?	A robot capable of super intelligence	A general chatbot	A contextual chatbot	An AI personal assistant chatbot	A3	Contextual chatbots can make unprompted suggestions. The personal assistant type chatbot connects with external applications. This was covered in Unit 5, Lesson 8, page 92.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
Final	2	According to the National Association of REALTORS® 2017 report, 89% of buyers use _____ to determine whether to see a property.	Online photos	Price	Facebook	Advice	A1	Photos sell. Nearly all buyers make the decision on whether to see a property, based on photos. This was covered in Unit 1, Lesson 1, page 5.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
Final	3	What's the best definition of ransomware?	Wire fraud	Identification theft	Antivirus software that protects against malware	Code that encrypts a user's data, holding it hostage	A4	By clicking on a link, the victim accidentally sets off code that encrypts their data, which is then held for ransom. This was covered in Unit 4, Lesson 1, page 58.	Describe technological advances that keep online data secure.
Final	3	Where are computer users most vulnerable to cyber criminals?	Cloud storage	Email	CRM software	Word processing applications	A2	Email is the area of most vulnerability due to attachments and links that contain malware and viruses. This was covered in Unit 4, Lesson 2, page 60.	Describe technological advances that keep online data secure.
Final	3	Josh is helping Sherman, a buyer, tour Robin's house, which is listed with Tina, of a competing agency. Josh and Sherman haven't yet signed a buyer representation agreement. Who does Josh work for?	Sherman	Robin	No one	Sherman and Robin	A2	There's only one client here, and that's Robin. This was covered in Unit 2, Lesson 1, page 27.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
Final	3	Blake's buyer just asked him what his monthly mortgage payment would be on the house he's touring. Blake's best option is _____.	To tell his buyer that he's not qualified to answer that question	To use a mortgage calculator app on his smart phone to get the answer	To wait until he's back at the office, and ask his broker	To look it up online	A2	Sure, you can google "mortgage calculator" on your smart phone, but having an app at the ready—one you're familiar with using—can help you get them the information they need more quickly. This was covered in Unit 2, Lesson 2, page 30.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
Final	3	A popular mortgage calculator app includes _____.	Jane's Mortgages and Monetization	Karl's Mortgage Calculator	Reverse Mortgages R Us	Straightforward Home Loans and Mortgage Pricing	A2	Karl's Mortgage Calculator is available through Dr. Calculator.com. Other examples are the U.S. Mortgage Calculator, and the mortgage calculator by Quicken Loans. This was covered in Unit 2, Lesson 2, page 30.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
Final	3	Loan comparisons were made easier when _____.	Interest rates rose	The Feds lowered the prevailing interest rates	The Good Faith Estimate was replaced with the Loan Estimate	Principal was lumped in with loan costs	A3	The Loan Estimate helps to homogenize loan costs, allowing buyers to more easily compare financing options. This was covered in Unit 2, Lesson 2, page 31.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.

Unit #	Difficulty Level (1-3)	Question	A1	A2	A3	A4	Correct Answer	Feedback	Course Objective
Final	3	Rachel is qualifying a buyer. She should ask qualifying questions, such as _____.	What's your country of origin?	Are you working with a lender?	Who's your tax advisor?	Do you plan to have children?	A2	Buyers should obtain prequalification from a lender prior to shopping for a home so they know how much home they can afford. This was covered in Unit 2, Lesson 2, page 30.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
Final	3	Which of the following is a true statement about credit clean-up software?	Most buyers should buy the best one they can find.	No organization or app can wipe a negative item off a credit report.	Credit cleaner kits are the better option.	Buyers are better off working with a credit repair consultant.	A2	Credit repair is something buyers can do on their own, and shouldn't have to pay for. This was covered in Unit 2, Lesson 2, page 80.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
Final	2	How can buyer agents make buyer tours more efficient?	Ask the buyers to drive their own car, with the agent navigating.	Ask the buyers to navigate while the agent drives.	Use routing software.	Only tour on Sundays, when traffic is lower.	A3	Routing planners can help you determine the quickest route to any location, and, the best sequence for your showings. This was covered in Unit 2, Lesson 3, page 33.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
Final	3	Buyer agents should _____.	Set buyers up for MLS feeds, and wait for contact from the buyers	Make it a practice to stay in touch with buyers at least weekly	Not use automatic MLS feeds, but instead prescreen every feed and only send those that are worthy to the buyers	While it's great to set your buyer clients up for automatic MLS feeds, make it a practice to stay in touch with them at least weekly—more often if the situation warrants it. Automatic email feeds should be sent with the frequency your clients expect it—daily, weekly, (or an "asap" alert in a hot market), etc. This was covered in Unit 2, Lesson 4, page 37.	A2	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.	
Final	3	Your buyer, Lou, is pretty upset that you don't automatically know which house on Stevens street he means. "You just sent it to me!" What should you have done to prevent this?	Not set him up for automatic feeds.	Asked him which one he means.	Asked him for the MLS number of the listing.	Set yourself up for the same automatic feeds Lou receives.	A4	Always opt to receive the feeds as well. This was covered in Unit 2, Lesson 4, page 38.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
Final	3	Which of the following is a neighborhood networking site where you can learn information about a neighborhood your buyers are interested in?	GoogleAlerts	GoogleEarth	NextDoor	NeighborFind	A3	With NextDoor, you enter the neighborhood you want to connect with, and can see feeds from residents who share resources and data on the site. This was covered in Unit 2, Lesson 4, page 38.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
Final	3	Which carries more legal weight?	Digital or ink; it doesn't matter	Typed signatures	Ink signature	Digital signature	A1	Electronic signatures carry the same legal weight as hard copy documents, and are more common now than hard copy documents. Their acceptance by consumers is widespread, but prior consent is required. This was covered in Unit 3, Lesson 1, page 45.	Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.
Final	3	Richard has decided to add text messaging to his box of buyer communication tools. His best bet is to _____.	Ask if it's okay to send texts before doing so	Send texts early in the morning, before buyers leave for work	Schedule texts to send at regular intervals	Place all buyers on the same text schedule, and send broadcast texts	A1	Texts can be effective communication methods, but ask permission first. This was covered in Unit 2, Lesson 4, page 40.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.

Technology Tools, Trends, and Risk Management: Elective Course - Unit and Final Exam Banks

Unit #	Difficulty Level (1-3)	Question	A1	A2	A3	A4	Correct Answer	Feedback	Course Objective
Final	3	Of the options provided, which is the LEAST common way buyers find homes, according to the 2017 NAR buyer and seller profile?	Print advertisement	Seller	Internet	Real estate agent	A1	Print advertising for real estate is less effective than online advertising, because buyers tend to shop online. This was covered in Unit 1, Lesson 5, page 21.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
Final	3	A _____ can help a prospective buyer visualize room flow, room proximity, and layout.	Floorplan	Photo of the exterior	Valuation	Tax bill	A1	Some buyers are concerned with room flow, proximity, privacy, and layout. An easy way to provide this information is with a floorplan. This was covered in Unit 1, Lesson 3, page 14.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
Final	2	Which of the following is a true statement about the use of floorplans when marketing your listings?	Very few MLS systems allow licensees to attach floorplans to listings.	They should be used in place of photos, to help buyers visualize themselves in the space.	Licensees should never draft floorplans due to liability concerns.	New construction properties often have floorplans available.	A4	Floorplans and blueprints are often available with new construction properties. This was covered in Unit 1, Lesson 3, page 14.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
Final	3	You represent a client in the purchase of a new construction property. Where's your best bet for obtaining a floorplan?	Builder	MLS	Your broker	Title company	A1	Floorplans and blueprints are often available with new construction properties. This was covered in Unit 1, Lesson 3, page 14.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
Final	3	What's the significance of the SentriSmart and REALTORS® Property Resource app combination?	They allow buyers to access additional property information.	They provide additional security to home sellers.	They allow buyers earlier entry into homes.	They save sellers money.	A1	The combination allows users of the lock boxes to tap over to RPR's mobile app and access property details such as square footage, recent price changes, nearby schools, etc. This was covered in Unit 1, Lesson 4, page 17.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
Final	3	Recent technological advances in yard signs include _____.	Musical signs	Lighting	Revolving signs	Signs with flyer boxes	A2	Recent changes include lighting, text messages sent to buyers in close proximity, QR codes, and signs that don't require post installation. This was covered in Unit 1, Lesson 4, page 19.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
Final	3	Using print advertising to market a listing is _____.	Required	Highly effective	Often expected by the seller	Usually less expensive than online advertising	A3	Although some sellers expect a licensee to place classified ads, these are generally less effective than an online presence. This was covered in Unit 1, Lesson 5, page 21.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
Final	3	Marcus is your buyer client and you're about to show him a dozen homes over the weekend. He's afraid he won't be able to keep them all straight. What app do you recommend?	A routing planner	House Hunter	Loan Comparison	Nextdoor	A2	House Hunter allows buyers who've already identified homes to enter their addresses and score them on as many as 80 criteria selected by the buyers. This was covered in Unit 2, Lesson 5, page 41.	Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.

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Unit #	Difficulty Level (1-3)	Question	A1	A2	A3	A4	Correct Answer	Feedback	Course Objective
Final	3	What three features do most CRM packages include?	Number crunching, word processing, and communication tools	Address books, contact organization, and communication tools	Email, spreadsheets, and address books	Address books, email, and word processing	A2	Address books, the ability to organize contacts, and communication tools within the software itself are all key features of a CRM package. This was covered in Unit 3, Lesson 2, page 48.	Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.
Final	3	Which cloud storage option is already available to Gmail account holders?	Google Earth	Google Drive	EverCloud	Dropbox	A2	Every Gmail user has a Google Drive account, making it easy to share files with other Gmail users. This was covered in Unit 3, Lesson 3, page 51.	Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.
Final	3	What's Evernote?	A free tool that allows you to mark up digital photos	An application that allows you to convert photos to documents	An organizational app that allows you to sync notes across multiple devices	An automated alert that sends you a note when a search term you've specified appears online	A3	Evernote allows you to place notes and logs online and sync them between devices where Evernote is installed. This was covered in Unit 3, Lesson 3, page 53.	Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.
Final	3	This technology tool can be thought of as a digital Post-It Note that can be made to appear on any device where the tool is installed.	Dropbox	Evernote	CamScanner	Skitch	A2	Evernote allows you to place notes and logs online and sync them between devices where Evernote is installed. This was covered in Unit 3, Lesson 3, page 53.	Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.
Final	3	_____ allows licensees to access transactional documents from any device, provided Internet connection is available.	Dropbox	Evernote	CamScanner	Skitch	A1	This describes Dropbox. Other cloud storage options are Box and Google Drive. This was covered in Unit 3, Lesson 3, page 51.	Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.
Final	3	What are now more common than ink signatures for real estate transactions?	Pencil signatures	Electronic signatures	Notarized signatures	Recorded signatures	A2	Electronic signatures carry the same legal weight as hard copy documents, and are more common now than hard copy signatures. This was covered in Unit 3, Lesson 3, page 45.	Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.
Final	3	Why might a private email server be more secure than Gmail?	It's less visible	Private servers have safety features	No one can access a private server	Viruses can't infect private servers	A1	Gmail receives so much traffic that it creates a visible target for hackers. This was covered in Unit 4, Lesson 2, page 60.	Describe technological advances that keep online data secure.

Technology Tools, Trends, and Risk Management: Elective Course - Unit and Final Exam Banks

Unit #	Difficulty Level (1-3)	Question	A1	A2	A3	A4	Correct Answer	Feedback	Course Objective
Final	3	Sheena always uses a two-step verification with her email. This means she _____.	Enters her password, then enters it again	Logs in, logs out, and logs back in again	Inputs her user name and password, receives a code, then enters that	Uses both a user name and password each time she logs in to her account	A3	When this feature is enabled, when you log onto your Gmail account using your username and a code is sent to your cell phone via a text message that you must enter. This was covered in Unit 4, Lesson 2, page 60.	Describe technological advances that keep online data secure.
Final	3	What's Mighty Text?	A way to send broadcast text messages	A way to send larger text messages without truncating them	A way to backup text messages	A way to prevent text messages from going into user's spam file	A3	Archive software for text messages includes Mighty Text, SMS Backup+, and others. This was covered in Unit 4, Lesson 2, page 62.	Describe technological advances that keep online data secure.
Final	3	A public cloud is available to anyone with _____.	An account and password	A public computer	A community password	An internet connection	A1	A public cloud is available to anyone with an account and a password—individuals and large companies alike. An example is Office 365. This was covered in Unit 4, Lesson 3, page 63.	Describe technological advances that keep online data secure.
Final	3	API is used to _____.	Access data	Store data	Delete data	Tabulate data	A1	API (application programming interface) may be thought of as a library card that you (or others) may use to access your data. This was covered in Unit 4, Lesson 3, page 66.	Describe technological advances that keep online data secure.
Final	3	What are laas, Saas, and Paas?	Anti-virus protection	Data storage applications	Service level agreements	Phishing levels	A3	These are service level agreements that define responsibilities between cloud storage providers and users. This was covered in Unit 4, Lesson 3, page 66.	Describe technological advances that keep online data secure.
Final	3	When more than one company or individual has data on the same cloud space, this is called _____.	Oversharing	Multitenancy	Phishing	Cloudware	A2	Here, a single instance of software runs on a server, serving multiple tenants. This was covered in Unit 4, Lesson 3, page 66.	Describe technological advances that keep online data secure.
Final	2	According to the National Association of REALTORS® 2017 report, what percentage of buyers use photos to determine whether to see a property?	50%	60%	78%	89%	A4	Photos sell. Nearly all buyers make the decision on whether to see a property, based on photos. This was covered in Unit 1, Lesson 1, page 5.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
Final	3	Shawna has decided to hire a professional photographer to market her client's listing. This is _____.	Required	Ill-advised	An unnecessary expense	A good investment	A4	Photos sell. Nearly all buyers make the decision on whether to see a property, based on photos. This was covered in Unit 1, Lesson 1, page 5.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
Final	3	Compared to online advertising, print advertising is _____.	Both more expensive and less effective	More effective	Both less expensive and more effective	Less expensive	A1	Print advertising for real estate is less effective than online advertising, because buyers tend to shop online. This was covered in Unit 1, Lesson 5, page 21.	Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
Final	3	A SnapChat geofilter is _____.	An overlay that costs money	A free extension to the application	A way to see where your audience is coming from	A smart app that screens out hackers	A1	A geofilter is an overlay that's location- or event-specific. Center it around an event, such as a parade, and your followers may share it with others. Geofilters aren't free. This was covered in Unit 5, Lesson 3, page 79.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.

Technology Tools, Trends, and Risk Management: Elective Course - Unit and Final Exam Banks

Unit #	Difficulty Level (1-3)	Question	A1	A2	A3	A4	Correct Answer	Feedback	Course Objective
Final	3	3) SnapChat is _____.	Available only by paid subscription	Designed specifically for real estate agents	Widely used by the real estate industry	Made up of nearly 200 million daily users	A4	As of August 2017, the daily user tally was 173 million. It's not in wide use in real estate (yet), and is a free app. This was covered in Unit 5, Lesson 3, page 78.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
Final	2	2) What's your unique value proposition as a real estate licensee?	Your knowledge	Your website	Reduced fees	Technology tools	A1	Your unique value proposition is the data between your ears, and the data at your fingertips. This was covered in Unit 5, Lesson 4, page 81.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.
Final	3	3) _____ is an email add-on that displays social media information about contacts inside your email box?	TootSuite	HootSuite	Rapportive	Tweetable	A3	This allows you to monitor social media posts without having to be on social media. This was covered in Unit 5, Lesson 4, page 81.	Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.

Technology Tools, Trends, and Risk Management – 4 hrs

Instructional Material

The CE Shop, Inc.

A printable version of the course content for this course is provided as a supplemental study resource and is not meant to replace the online course. All slides and activities must be completed within the online course and seat time requirements must still be met (where applicable).

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Course Title: Technology Tools, Trends, and Risk Management (4 hr)

Welcome

Course Introduction

Real estate is a relationship-based business. So why the focus on technology? Three reasons:

1. Technology is a tool. Used wisely, it can free up time usually spent on mundane tasks to allow you to work at a higher (and higher touch) level of client service. Used poorly, it can alienate your clients, and even put them—and your reputation—at risk.
2. Your clients and prospective clients are using it, and you want to be where they are. They expect you to be tech-savvy on their behalf.
3. Your competition is using it. According to a 2017 National Association of REALTORS® real estate report, staying up to date on new platforms and systems will be one of the biggest challenges for brokerages in the coming years. The industry is changing, and technology is a big driver of that change. You don't want to be left behind.

But let's not forget that relationship. Make technology your servant, not your master, and never lose sight of your client relationships in the push to provide cutting edge tools and services.

Course Content

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Course Objectives

Upon completion of this course, you will be able to:

- Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.
- Describe how to use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.
- Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.
- Describe technological advances that keep online data secure.
- Identify technology tools real estate licensees can use now to serve their clients, and describe emerging trends to watch.

Icons

Throughout this course, you will see various icons that will guide you through the material and help you navigate through the various information you will receive.



Objectives

Course or unit objectives outlining what the learner will accomplish at the end of the unit or course.



Note

Information that is specifically important or noteworthy.



Tip

Tips and suggestions for using the information on the job.



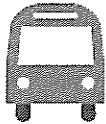
Activity

Activity that will help the learner apply the concepts in the course. Activities can be online, such as Check for Understanding questions, Matching activities, True/False activities, etc., or offline, such as activities to perform on the job.



Case Study

Scenarios, case studies, or other key examples.



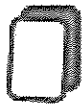
Virtual Field Trip

External websites or sources where the learner will obtain additional or supporting information. Some Virtual Field Trips may be mandatory and others may be optional.



Key Point

Summary of key points within the unit or chapter.



Handout

Takeaway information.



Exam

A unit exam or final exam.

Unit 1: Technology Tools for Sellers

Introduction to Unit 1

With discount brokerage services, limited service agents, downward pressure on commissions, and an increase in sellers who opt to avoid using an agent altogether, it's never been more important than now to prove and improve the value of the full-service listing model. In addition to knowing their market inside and out, listing agents

must take advantage of technology to help sellers market and sell their homes, and be able to articulate and quantify their value to prospective clients.



Objectives for Unit 1

Upon completion of this unit, you will be able to:

- Identify technology tools used to enhance service to sellers, including drones, live streaming, single-property sites, and speaking photos, and describe ways to minimize risks involved in their use.

Lesson: Better Client Service through Technological Advances in Photography and Video

Photos Sell; Make Them Count

It's almost impossible to justify not using a professional photographer to take your listing photos. Photos sell. According to a National Association of REALTORS® (NAR) 2017 report (see link below), 89% of buyers use photos to determine whether to see a property. If your photos are amateurish, not properly lit, or not composed well, you're squandering a key marketing opportunity and doing your sellers a disservice.

If you lack photography skills and appropriate equipment, hire a professional photographer. This is a benefit to using you as a listing agent that you can articulate to your sellers. Professional photos also serve as marketing examples for prospective clients. They set you apart from your competition.

The reality is that photos taken by even the best DIY-er will be outmatched by the quality that a professional can offer, and this can translate to finding a buyer sooner. Extended time on market can cost you more in marketing expenses (flyers, advertising, time), and client confidence than a professional photographer will charge.



HANDOUT: National Association of REALTORS® [Real Estate in a Digital Age 2017 Report](#).

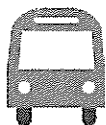
Consider Photo Editing Software

When snapping your own photos, photo editing software allows you to edit pictures right on your smartphone. You can highlight problem areas before sending a picture to a contractor or enhance a listing photo before posting it on a website or sharing it on social.

Examples of photo editors include:

- Photoshop Express
- SKRWT
- Snapseed
- TouchRetouch

Remember that, although you can create some interesting effects with photo editing software, your listing photos must be truthful. You can use photo editing to correct photo errors, improve lighting, composition, or for some cool visual effects, but don't use it to mislead buyers. Yes, you can remove the photo-bombing cat, but not the telephone wires, for instance.



VIRTUAL FIELD TRIP:

[Photoshop Express Demo](#)

[Snapseed Demo](#)

[SKRWT Demo](#)

[TouchRetouch Demo](#)

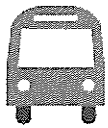
Add Degree and Dimension to Your Photos

The Girotopic iO is a 360-degree camera you can attach to your iPhone. It allows you to take photos, record videos, and even livestream video in 360 degrees.

Matterport provides a 3D tour option similar to Google's Street View feature. It can create "doll house" effect photos where you see the entire room in 3D from above and at various angles. It allows the buyer to "fly through" the house in virtual reality, providing a true picture of the space, including the relationship of the rooms, doors, windows, and hallways. Many professional photographers now offer Matterport services to real estate agents, so check around.



TIP: Some techies believe that, just as video has become *de rigueur* on the web, ultimately, all of our interactions with the digital realm will be in 3D and virtual reality, so you may want to stay ahead of the curve with technology like this.



VIRTUAL FIELD TRIP:

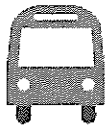
[Giroptic iO](#)

[Matterport](#)

Create Video Walkthroughs

Video walkthroughs, while not as transporting for buyers as a Matterport scan, offer more insight into a property than mere photos offer. Video walk-throughs can be done with a high-quality smartphone or even a drone. You can also hire out this service (to either a videographer or drone photographer). Zillow offers a free app (and there are many others) and provides a how-to on its site.

Video walk-throughs can be uploaded to YouTube, turned into links on emails, and the URL added to flyers. Some MLS systems allow video in this format to be added to private remarks. Video walk-throughs can also be sent to out-of-town buyers as a buyer's agent, to help them preview the home and decide whether to travel to see the home in person.

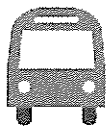


VIRTUAL FIELD TRIP: Zillow Video Walk-Through and Tutorial

Consider Live Streaming

There may be times when live streaming makes good marketing sense. Take a few seconds' of film at a client appreciation party, a sunset view on the balcony of your new listing, wave action outside of that waterfront property, a virtual tour of a property, etc., and you can share this on social media or individually with a client or prospect. When broadcasting the feed, you can see reactions via chat in real time, or turn them off, at your preference.

Free live streaming apps abound. Twitter purchased Periscope, a live streaming app. We've included a link to a humorous look at how this works. (No, you probably don't want to live stream yourself eating a taco salad and chips.)



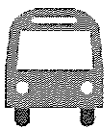
VIRTUAL FIELD TRIP

[VIDEO]: <https://www.youtube.com/watch?v=6mp4RkxvE0g>

Pictures Worth a Thousand Words

How cool would it be to take a photo, and then record audio on top of it? With apps like Speaking Photo, this is a reality. One application for the product is in preparing a comparative market analysis. Use a photo from each comparable property, and talk about how it stacks up next to the subject property.

Check out Speaking Photo at the link below, which has several examples of how the app can be used, including for real estate marketing purposes.



VIRTUAL FIELD TRIP: Speaking Photo

Lesson: Legal Aspects of Using Drones When Listing Property

Droning On and On

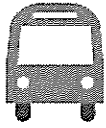
A drone, in case you've been living under a rock, is an unmanned aerial vehicle that's used in real estate to take aerial photography and video. In the beginning, using a drone for commercial purposes required a special permit from the federal government, which often took several months, and a pilot's license. That's no longer required, but there are specific drone rules, most of which are directly in line with how real estate licensees would use drones anyway. Operators of commercial drones must:

- Be at least 16 years of age
- Pass an aeronautical knowledge test at an Federal Aviation Administration (FAA)-approved facility, and pass a background check to qualify for a remote pilot certificate.
- Keep drones within visual sight of the person flying the drone (with the naked eye)
- Fly only during the day (twilight flying is okay if the drone has anti-collision lights)
- Refrain from flying the drone over people who aren't directly participating in its operation
- Refrain from allowing the drone to go higher than 400 feet above the ground
- Keep drone speed under 100 mph
- Not weight the drone with packages heavier than 55 pounds

The new rules don't apply to recreational drone use, only commercial, and commercial operators can apply for a waiver of most of the restrictions as long as they can prove their proposal will be safe.

Drones Provide a Birds-Eye View

Drones allow real estate photographers to provide dramatic, sweeping video of landscapes, ocean and mountain views, and the home's surroundings. Drones can be used in combination with their ground-based cousins, glidecams, which can be used to provide a virtual tour of the home's interior, then the two videos can be combined to create a flowing, whole-house motion tour in high definition.



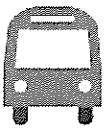
VIRTUAL FIELD TRIP: VIDEO [2:42] See a drone and glidecam combo in action on a real estate [video](#) shoot.

Drones Do Have Limitations

Whether you decide to invest and do it yourself, or hire a photographer, drone-captured photos and videos can be a great marketing tool for the right property. Drones are great for properties on large lots, or near vistas such as mountains, forests, ocean, lakes, and rivers. They're not appropriate for:

- Small spaces (such as condos)
- Properties shrouded by trees or taller buildings
- Standard street shots
- Unsightly surroundings

Drones appropriate for real estate use come equipped with 4K cameras (with horizontal resolution of 4,000 pixels) flying platform (the visible drone), live video, three-axis gimbal (pivot points that allow rotation along each axis), advanced flight control software, and a flight controller. Prices start between \$1,000 and \$2,000, but you can always pay more!



VIRTUAL FIELD TRIP: Here's a Zillow article, [Using Drones for Real Estate Photography](#)

Lesson: Floorplan Software: Is Accuracy a Concern?

Add a Floorplan to Your Listing

Many home buyers want a home with rooms of a minimum size, especially bedrooms. Some are concerned with room flow, proximity, privacy, and layout. An easy way to provide this information is with a floorplan. So, where do you get floorplans?

- Appraisers often have floorplans available, or can provide one for a fee.

- Custom-built properties will often have plans available at the tax assessor office or website.
- Floorplan software is available to create your own.
- Floorplans may be obtained from appraisers, architects, room designers, and other vendors for a fee.
- New construction properties often have floorplans.
- Building departments may have plans, especially if recent remodeling was done.

Floorplan Software

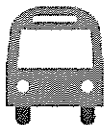
Floorplan software allows you to add a floorplan to your listing photos. It's straightforward process to add a floorplan to your MLS listing—either attach it as an additional document, or use it as one of your allowed photos. Floorplans help buyers visualize the layout in a way that photos can't, and they can be used in places where 3D video, such as Matterport, can't.

Software options for floorplans includes:

- TruPlace, which employs a layout/virtual tour setup that lets prospective buyers flip through photos as they go through rooms. TruPlace offers both 2-D and 3-D floorplan layouts.
- Floorplan Visuals, which creates illustrated floorplans instead of a virtual tour like TruPlace. It also offers visual renderings for new construction.
- RoomSketcher, which allows you to either create your own floorplan using RoomSketcher software, or order one that's been made for you.



TIP: You can create a similar “hover over” quality as TruPlace offers when adding floorplans to your website by creating hot spots in each room, and linking to photos.



VIRTUAL FIELD TRIP: Check out the options in this category.

TruPlace ([click on a house and hover over rooms in floorplan to see photos of property](#)):

TruPlace ([shows 2D and 3D floorplans](#)):

Floorplan Visuals

RoomSketcher

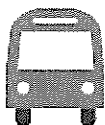
Floorplan Sketchers and DIY

Check with your broker; there may be floorplan vendors in your area who can sketch a floorplan for you. Most who do charge between \$100-\$250 for a simple plan, more for multiple floors and complex layouts. New construction should have blueprints or floorplans readily available, however.

You can also create a floorplan based on your measurements of the property. A laser device available from home improvement stores can help you measure almost any home in less than 30 minutes. You can then create the layout using software such as HGTV's Home Design & Modeling Suite software. Be certain to note on the drawing that the measurements are intended to be accurate, but aren't guaranteed, and should be verified by the buyer.

Want a low-tech option? You can also create a floorplan using Microsoft Excel! The video below shows you how.

But whether you do it yourself or avail yourself of a software application, be certain to source your information and use a disclaimer, "Floorplan is made available through X as a courtesy to buyers, and is an approximation only."



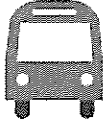
VIRTUAL FIELD TRIP: VIDEO [8:15]: [How to Make a Floorplan in Excel](#)

Lesson: Advances in Lockboxes and Signs: Know the Risks as Well as the Rewards

Be Tech-Savvy: Think-Outside the (Lock)box

The National Association of REALTORS® has integrated its REALTORS® Property Resource (RPR) function with its SentiLock lock boxes, which are equipped with the SentiSmart app to provide on-the-spot answers to client questions. By connecting the two wholly owned, for-profit subsidiaries, NAR integrates its mobile app tools,

allowing users of the lock boxes to tap over to RPR's mobile app to access property details such as square footage, recent price changes, nearby schools, etc.



VIRTUAL FIELD TRIP: VIDEO [1:52]: [REALTORS® Property Resource](#)

VIRTUAL TOUR: [NAR News Release Realtors Property Resource® Joins SentiLock to Offer Realtors® On-the-Spot Property Data](#)

Yard Signs Get a Boost from Mobile Technology

Yard signs are a marketing tool that's withstood the test of time in technology. Yard signs are used to target the market and engage people. Remember the old days where real estate signs were just ... signs? Then a savvy real estate pro thought of adding a phone number with a recorded description of the property. That's so last decade. Buyers who view yard signs nearly always have a mobile device within reach. When the sign reads, "To see pricing and details, text SHOWME to 46885," buyers are likely to do that.

With some signs, buyers will receive a text message with a link to information on all listings from that brokerage within 500 feet of their location. They will also be given contact information of the listing agent, who, after all, knows the most about the property. The listing agent will instantly receive an alert with the consumer's mobile number and can connect with the consumer directly—and immediately.

QR Codes Put Pertinent Data within a Buyer's Reach

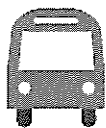
A QR (quick response) code is a barcode that can be scanned with a smart phone application that will direct the person to view a webpage, images, video, etc. Placing a unique QR code on a real estate sign or rider makes it easy to link to all of the information a buyer needs in order to decide whether to see this property in person. Make sure you put the property address on any link; buyers often scan QR codes in lieu of writing down the address.



TIP: QR codes can also be added as stickers to lock boxes for buyers who are curious about the property but are not yet working with a licensee. This is especially

great for vacant properties, because buyers can learn all they need to without peeking through windows, standing on utility boxes to peer inside high windows, etc.

QR codes are free and easy to create in about three seconds using an online QR code generator. If you've never created one before, now's your chance.

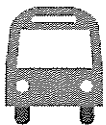


VIRTUAL FIELD TRIP: Create your own QR code [here](#).

Sign Technology Goes Beyond Digital

Ever think that the yard sign leaves a lot to be desired? So did several real estate pros whose innovations made them more visible, more versatile, more portable, and eliminated the need to call a sign company to install them.

And what about nighttime? If a buyer drives by, will they be able to read your sign? Bright minds have been working along these lines. Take a look at your resources for more info.



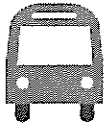
VIRTUAL FIELD TRIP:

[Signs of Innovation](#)

[Light-Up Real Estate Signs](#)

Dutch Take Signs Further

The Dutch are often at the forefront of innovative design. Their iBeacon not only pushes data to anyone with its smart phone app when they're outside the property, it also acts as a sort of digital docent for buyers when they tour the property. iBeacons inside the home are triggered as the visitor tours the home, and features of the current room, such as wainscoting, custom draperies, etc., are "beamed" to the visitor's smart phone. Have you ever toured a property where a savvy listing agent has placed informational cards throughout the home, such as "Property backs to green space"? Well, iBeacon takes that approach digital, and mobile. Will this come to the U.S.? Who knows? But it's interesting to note that the technology is out there, right?



VIRTUAL FIELD TRIP: Read about [the iBeacon](#).

Lesson: Technology and Advertising: Risks and Rewards

Print Advertising Is Expensive and Ineffective

If you're wondering how you're going to afford all the new technology to promote your clients' listings, you can save some money by not placing classified ads. Although some old-school sellers still expect this, show them the following data from a 2016 NAR profile of buyers and sellers. Here's how buyers are finding their homes:

- Internet: 51%
- Real estate agent: 34%
- Yard sign/open house: 8%
- Friend, relative, neighbor: 4%
- Home builder or home builder's agent: 2%
- Directly from seller (seller is known to buyer): 1%
- Print newspaper advertisement: 1%

Note: Due to rounding, these percentages total slightly more than 100%.

You'd be better off spending those marketing dollars on signage, targeted Internet ads, or an open house. And if you do decide to spend money on print advertisement, you may want to limit it to open houses or branding purposes. Top of Form

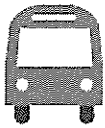
Online Advertising

Some online advertising is free (think Craigslist), and some advertising hubs will disseminate your ads online for you. Adwerx (adwerx.com) for instance, will post ads on Facebook, websites, geographic areas, and can even "follow" viewers who've looked for real estate on some sites through cookies, presenting your ads even after they've left those sites. The site also provides advertising result reports you can share with your clients.

Pay-per-click is another option for advertising online. You purchase key words or phrases, such as, "homes for sale Cityville," and pay each time a visitor searches for

those words and clicks through to your site. Be sure to check conversion rates to make sure ads are working. It's not just about clicks, but how many leads it brings in.

You can also create a single-property website using a free or low-cost website builder, and include the URL on all of your other marketing materials.



VIRTUAL FIELD TRIPS: Check out Adwerx.com.

Here's a look at a single-property website for [4994 Eliots Oak Road, Columbia, Maryland](#).

Here's a look at [Google AdWords](#), which promotes pay-per-click advertising.



HANDOUT: Think you're ready to jump into online marketing on behalf of your clients, or even yourself? Be sure to have a strategy. Here's a brief look at some ways to [manage your online marketing activities](#).



Key Points for Unit 1

- Professional photos help sell properties. If you lack photography skills, hire a photographer for your listings.
- Photo editing software includes Photoshop Express, SKRWT, Snapseed, TouchRetouch, and others.
- There's a definite move toward 3D and virtual reality video. Matterport software shows buyers the details of the home in 3D from above and at various angles.
- Drones may be used to take aerial video of properties, and can be combined with glidecam interior shots, but you need to know the rules before you fly the friendly skies.
- Floorplans can help buyers visualize the space, and floorplans can be attached to MLS listings.
- Real estate signs have evolved somewhat, and are still important marketing tools. Lighting, stand-up models, and portability are all advancements.

- Print advertising is ineffective and expensive. Most buyers find their homes online.

Unit 2: Technology Tools for Buyers

Introduction to Unit 2

Ever pull up to a showing and before your buyers even get out of the car, you hear “Uh uh. Not gonna work.” Now you’ve got to call the listing agent and say your clients didn’t even want to go inside. And what about your touring schedule? You allotted a half hour for this property, and you’re only a five-minute drive to the next one.

Wouldn’t it be great to save yourself and your clients the hassle by helping them make the “see or don’t see” decision earlier in the process? Technology has tools for that.

And about that buyer tour. Do you ever find yourself back-tracking and wishing you had mapped it out a little better to save yourself and your buyers time? Technology has tools for that as well.

Technology can also help buyers make informed financing decisions, compare properties, and get to the closing table faster. But first, the highest level of service can only be provided when the buyer is your client, and loyalty and trust are established. That requires a signed buyer representation agreement, but many buyers are reluctant to sign one. Can technology help? Let’s find out.



Objectives for Unit 2

Upon completion of this unit, you will be able to:

- Use technology to secure buyer representation agreements, assist buyers with financing qualifications, and pre-showing data to help them make informed purchasing and financing decisions.

Lesson: The Buyer Representation Agreement: Key to Superior Client Service

Without a Buyer Representation Agreement, Who Do You Work For?

A client is someone with whom you have an express representation agreement, and to whom you owe the highest level of service. That's easy to identify with sellers—it's the listing agreement. But what about buyers? C'mon! They just want to see a house. They're not sure they want to buy yet. Can't you just show them that house? Now?

Sure, you can. You can also take their laundry to the dry cleaners, but it doesn't make you their agent, just their gopher. Do you want to be an unpaid gopher, or a real estate professional with an agreement that you'll be compensated when you provide specific services?

There are two reasons buyer representation agreements aren't as common as they should be:

1. **Buyer representation is relatively new**, compared to seller representation. In the not too distant past, the real estate industry didn't need buyer representation agreements; everyone worked for the seller, so there was no need. Unfortunately, buyers often didn't know that, so agency disclosure was born. Once disclosure occurred, buyers wanted and expected representation, and often got it without having a signed agency agreement in place, hence the problem.
2. **Agents don't insist on them.** "My last agent didn't ask me to sign anything." Yes, and where is that agent now? If that agent had secured a buyer representation agreement, it would have allowed the agent to provide a higher level of service, ensuring a loyal client who sticks around.

Make Your Position Clear from the Beginning

Be upfront that a signed buyer representation agreement is a prerequisite to your working with a buyer. Put it in your signature block, on your website, and mention it whenever you get a call from a buyer that you don't yet represent. Let some version of the following be part of your first conversation with every prospective buyer you meet:

"In order to provide the highest level of service possible to my clients, I only work for those with whom I have a signed agency agreement. With sellers, that means a listing

agreement. With buyers, that means a buyer representation agreement. Without that agreement, I not only don't represent you, but I can't represent you. Because without that agreement, you're a customer, not a client, and I will owe my allegiance to the seller. This is true not only for me, but for all agents, whether they mention it or not."

For your signature block:

My clients deserve my undivided loyalty and priority scheduling. Therefore, I exclusively serve buyers and sellers with whom I have signed representation agreements.

Make it Automatic

If you get a call from a prospective buyer, unless it's for your listing, or your firm's listing (in which case dual representation may be involved, but at minimum you'll need to disclose agency), you have a couple of options:

Before you head out to show that property, explain buyer agency. Then, you can either:

- Invite the buyer in for a meeting and explain the benefits of buyer representation. If the buyer won't sign, you don't work for the buyer and you need to let the buyer know that, or;
- Opt to show the property anyway, as a one-time thing, but let the buyer know that in the future, you're only available to show properties to clients.

Does this sound scary to you? "What if I lose a prospect?" you may ask. It's possible. But you're demonstrating to buyers that you're a professional, and you're preserving your time for those who deserve it—your clients. Chances are, you're going to be the only licensee buyers meet who takes this stand. You'll stand out as exceptional—someone who values your time.

Imagine what it would be like if all of the buyers you work with were loyal and committed clients?

Lesson: Financing Technology for Buyers

Mortgage Calculations – There’s an App for That

When you’re working with buyers, you want to ask some qualifying questions—and we mean that literally. Do your buyers know how much home they can afford? If not, ask them to be pre-qualified by a mortgage broker or lender. Armed with that information, your buyers can then shop intelligently for a home. This is Real Estate 101. But let’s say you’re showing them around, and your buyers have a question for you: They want to know what their monthly mortgage payment would be for a specific property. Can you crunch those numbers in your head? Thanks to mortgage calculator apps, you don’t have to.

Sure, you can google “mortgage calculator” on your smart phone, but having an app at the ready—one you’re familiar with using—can help you get them the information they need quicker. As one app reviewer said, “Works just as well as the one I use online, but better because it's in my pocket and ready to use.”

Mortgage calculator apps can help you:

- Calculate mortgage payments when given the principal, interest and loan term.
- Reverse calculate any one variable, given the others.
- Enter a down payment amount or percentage to learn how large a mortgage is required.

Some examples of mortgage calculator apps available include:

- Karl’s Mortgage Calculator by Dr. Calculator.com.
- U.S Mortgage Calculator
- Mortgage Calculator by Quicken Loans

Loan Comparison Calculators

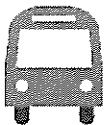
Homebuyers who intend to finance their purchase are counseled to shop their loan. But how do they do this? Loan comparison calculators are one answer, and letting your buyers know about these convenient tools will make you their new favorite real estate professional (if you weren't already). The relatively recent federal requirements for financing disclosures makes comparing loans much simpler than it used to be. Armed with their Loan Estimate forms, borrowers can use these tools to compare:

- Loan costs over the first five years
- Principal paid in the first five years
- Annual percentage rate
- Total interest percentage
- Total loan costs

Sometimes, the initial low rate is eaten up, and then some, by added costs to finance and close. These calculators take the guesswork out of the process. Bankrate.com has one such calculator.



TIP: Recommend that borrowers obtain a Loan Estimate from at least three sources, then show them where to look for some of this information. The section on page 3 of the Loan Estimate titled "Comparisons" was intended to be an easy way for borrowers to compare some of these costs.



VIRTUAL FIELD TRIP: [Bankrate.com Loan Comparison Calculator](https://www.bankrate.com/loan-comparison-calculator/)

Credit Clean-Up for Buyers

Some buyers don't make it this far—comparing mortgage rates and lenders. Instead, they're stuck behind the starting gate due to dings on their credit record. But they know interest rates are smokin' and they want to buy as soon as they're able. Wonder if there's an app or online software that will help them clean up their credit?

Actually, there are several, but possibly none worth recommending at the moment. "Credit cleaner kits" are sold with promises to fix buyers' credit issues. Ditto for credit repair organizations and software applications. No organization or app can wipe a

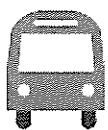
negative item off a credit report. At best, they may provide buyers with step by step credit clean up instructions, templated letters to dispute negative reports on their credit, and addresses for where to send the letters. All of this is Google-able, so buyers shouldn't waste their money. Cleaning up one's credit is advisable and admirable, but throwing money away isn't.

Lesson: Technology Helps You Do Your Homework Before the Showing

Before the Showing—Do They Really Want to See It?

Before mapping out a tour for buyers, do you provide them with all the information they need to make an informed decision as to whether they really want to see the property? In addition to calling the listing agent to determine whether another offer has already been accepted, do you ask if there are issues you should be aware of that didn't make it to the MLS listing? And before setting up that appointment with the seller, do you give your buyers enough data to decide if they should spend your time, the seller's time, and their own time looking at this particular property? Naturally, the listing agent is going to present the property on the MLS in its best light, but does that give the whole picture? Undoubtedly not.

Google Earth provides a 3D look at the property, its surroundings, its proximity to other residences, freeways, and industry. It can save the embarrassment of driving up to a home your buyers are excited to see only to find a water tower blocking out all sun in the backyard. Yes, it happens.



VIRTUAL FIELD TRIP: Type in your own address and see what [Google Earth](#) shows. (Click on the magnifying glass to search, then enter the address).

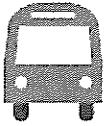
Use the Internet to Glean and Screen

While buyers are ultimately responsible for researching crime statistics, school district changes, and whether appropriate permits were pulled during the latest remodeling, a little homework goes a long way, here. Better to know now that the sunroom wasn't permitted before your buyers fall in love with the place and then back out when this is discovered.

Using your favorite search tool, enter “permits [name of city]” to see which department has online records of building permits. Assessor sites often have mapping programs that include permitting information, crimes reported, and crime statistics for the neighborhood, as well as zoning (including hazard zones). By providing this information to buyers upfront (it only takes a few moments), you can help your buyers determine which properties to see, and which to let pass, and possibly shave hours off of a mostly fruitless buyer tour.



TIP: Make sure you recommend that buyers do their own research on crime statistics, school districts, etc. You don’t want to be held responsible for online errors.



VIRTUAL FIELD TRIP: Here’s a [tax assessor map site](#) from the Portland, Ore., area called [PortlandMaps.com](#). Enter an address (try 1915 NE 63rd Avenue) into the search field to see the wealth of information at your fingertips.

Getting There from Here, with Buyers

Let’s say you’ve given your buyers all the information they need, and they’ve selected several properties to view. The more efficient you can be, the more time you’ll save, the more gas you’ll save, and the happier your buyers (and the environment) will be. Chances are, you know your city like the back of your hand—or do you? Routing planners can help you determine the quickest route to any location, and, the best sequence for your showings. Use one before calling sellers for a showing, and be prepared to be flexible, in case something changes. For instance, let’s say you get a call mid-tour and learn that one of the homes on the tour is no longer available. Route planners can help you quickly reroute, but be sure to let the sellers of the other homes know you’re running ahead of schedule. So, why not just GPS it? Route planners offer strategy, not just directions.

Here’s how:

You enter the addresses of the homes your buyers want to see (include your starting address), and the software will map the most direct route to each location. Some route planners are free; others require a subscription. Check out:

[Route4Me](#)

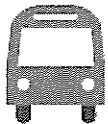
[RouteXL](#)

[SpeedyRoute](#)

[My Route Online](#)

Once You've Got the Route, Now What?

Once the buyer tour is mapped out, it's easy to provide buyers with a map showing where you'll be headed. Many licensees choose to have buyers meet them at homes, rather than ride together, for liability purposes. If so, in addition to a map showing the location, give buyers a copy of the route you'll be taking, and the schedule, from the routing software you've selected.



VIRTUAL FIELD TRIP: You can make a custom [Google Map](#) to show the location of the properties you'll be touring.

Lesson: Technology Tools for Buyer Communication: First, Ask the Right Questions

MLS Feeds ... A Start, But Not Enough

While it's great to set your buyer clients up for automatic MLS feeds, make it a practice to stay in touch with them at least weekly—more often if the situation warrants it. Automatic email feeds should be sent with the frequency your clients expect it—daily, weekly, (or an “ASAP” alert in a hot market), etc. Not every buyer is in the same hurry, but even if your buyer asks for “Friday feeds only,” be sure to check in periodically to see if that situation has changed. Ask what level of detail the buyer wants in the feeds (full or summary). Always opt to receive the feeds as well. When your buyers call you and ask to see “the one on Maple that you just sent me,” they'll expect you to know exactly the property they mean. Set up criteria asking the right questions:

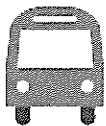
- Location?
- Price?
- Age?

- How many bedrooms?
- How many bathrooms?
- How many square feet?
- What are your parking requirements?
- Any other important home features?

Beyond these automatic feeds, set up hot sheets for yourself. If your buyer is interested in a property, but thinks it's priced a little high or isn't quite ready to make an offer yet, add it to your hot sheets to keep tabs on price changes, status changes (e.g., active to pending or withdrawn), and communicate these changes to your buyer. It takes very little time and it will convey to your buyer that you're on top of both the market and their specific needs.

Provide Weekly Stats

Provide summary pages of activity in the areas in which your buyer is shopping. Include all price ranges, because this is a snapshot of what's happening in their chosen market (or markets), and not a replacement for the automatic feeds. Consider subscribing to Nextdoor for the area to learn all there is to know about a given neighborhood, including pet sitters, aestheticians, crime stats and the best coffee houses. Or subscribe to Google Alerts and get notified every time the neighborhood turns up online.



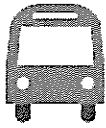
VIRTUAL FIELD TRIP: [Nextdoor private social network by neighborhood](#)

[Google Alerts](#)

Text Alerts Reach Buyers Where They Are

When the market's hot, any delay can cost your buyer the deal. Text alerts allow you to reach buyers instantly. You can send links to MLS listings, web sites, virtual tours, or you can notify buyers that you've just emailed them information about a property. Many consumers now prefer texts to email or phone calls. Always ask your buyer's preferred method of communication, and use it.

Remember to ask permission to text first. So, what do you text, when, and how do you send it? Check out your virtual field trip for possible answers.



VIRTUAL FIELD TRIP: [Real Estate Lead Texting: When and What to Text for Phenomenal Response Rates](#)

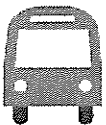
Lesson: Technology Tools to Prevent Buyer Overwhelm

Which Home Was That Again?

When showing buyers multiple properties, analysis paralysis can set in, as can abundance amnesia. How do buyers compare the gorgeous wainscoting in the house on Allen Street with the marble fireplace at the house on Dakota Lane when they can't even remember which house had which? Believe it or not, there's an app for that (likely several by now). Let's take a look at House Hunter, which is available on the iPhone.

House Hunter allows buyers who've already identified homes to enter their addresses and score them on as many as 80 criteria selected by the buyer, such as how far the property is away from their employer. The app also allows buyers to add photos and notes using voice input.

Let your buyers know about this app; in fact, install it on your own phone and provide a demo. You'll be their favorite tech-savvy agent.



VIRTUAL FIELD TRIP: Check out [House Hunter features here](#).



Key Points for Unit 2

- Buyer representation agreements allow licensees to provide the highest level of service to buyers. Without them, buyers are customers, not clients.
- To incorporate buyer representation into your practice, be consistent and always use buyer representation agreements.
- Mortgage calculator apps can help buyers calculate mortgage payments when given principal, interest, and loan terms. Buyers can also reverse calculate any

of these variables when given the others, and learn how large a mortgage is required, based on down payment or percentage down.

- Loan comparison applications help buyers compare financing terms and costs.
- The benefit of credit repair software and consultants is questionable at best.
- Licensees should do some homework on properties online before scheduling in-person showings, including searching for permits pulled, zoning, and crime stats.
- Routing software can help licensees map out the most efficient buyer tours, saving time and gas.
- Automated MLS feeds are fine for buyers, but make sure you have the feeds sent to you as well, and set up hot sheets to stay apprised of status and price changes on properties of interest to your buyers.
- Google Alerts allow you to track specific terms online. You can use these to keep tabs on your market.
- House Hunter and similar apps can help buyers compare and score properties they've seen.

Unit 3: Technology Tools for Transaction Management

Introduction to Unit 3

Transactions involve paperwork, and keeping track of that paperwork can be a hassle. Fortunately, technological advances have simplified the process. Document sharing, digital signatures, cloud storage, and photo, document, and email organization software can help make order out of chaos.



Objectives for Unit 3

Upon completion of this unit, you will be able to:

- Identify technological advances in transaction management, including document sharing, electronic signatures, cloud storage, and photo, document, and email organization software, and identify risk management safeguards for online data storage and transaction management.

Lesson: Using Technology for Document Management

Documents Can Be Sent, Stored, and Signed Online

Sure, some old school real estate professionals still complete hard copies of purchase agreements while leaning over the hoods of their cars, but they're in the minority. And though some consumers were initially hesitant to receive and sign contracts online, most have now begun to appreciate the convenience of online document sending, sharing, and signatures.

Because online transaction management software abounds, it can be difficult selecting the one that's compatible with your needs. Consider:

- **Training and support:** Will the company teach you how to use the software? Is there a comprehensive knowledge base that you and your clients can refer to for help?
- **Uploading capabilities:** What permissions does the software allow for individual files? Does it fall within your needs?
- **Client functionality:** Is the software easy enough for even technologically challenged clients to use?
- **Emailing capabilities:** Can you send and receive emails inside the software for related communications?
- **Notes:** Can you make notes without changing protected documents?
- **History:** Does the software keep track of changes to the transaction and major events as they occur?
- **Availability:** How widely available is the software? Do the online servers have a high reliability rate? How quickly does a document become available once it's submitted?
- **Contact information:** Can the software save and distribute the contact information of involved parties for easier contact?
- **Archiving:** How long do the servers store documents? Are hard copies distributed when necessary?
- **Cost:** Does the software company charge a flat fee? Per transaction? Per account? Per month?

Prioritize features before investing in an online transaction management system. Ask around to learn which types of systems have worked well for others. You may want to

select one in common use in your brokerage. That way, if you have questions, there will likely be someone around who can help answer them.

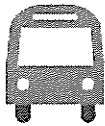
E-Signatures

Electronic signatures have been legally recognized at a national level since the 2000 enactment of the Electronic Signatures in Global and National Commerce Act (ESIGN), a federal statute that was signed into law by President Bill Clinton (who used his electronic signature to do so).

The act specified that the use of a digital signature is as legally valid as a traditional signature written in ink on paper, making electronic contracts, e-signatures, and other electronic records legally equivalent to their paper counterparts.

E-signature and document management companies like DocuSign, a REALTOR® program partner, allow you to upload important documents online from a computer, smartphone, or tablet. DocuSign even has a DocuSign Transaction Room that allows brokerages to manage their activities from a central, secure location in the cloud.

Other options are Hello Sign, and free software on Preview on Mac or Adobe Reader on PC.



VIRTUAL FIELD TRIP: Check out the [DocuSign Transaction Room here](#) (scroll down until you see the words *DocuSign Transaction Rooms for Real Estate*).

Here's a look at [HelloSign.com](#)

Make Sure You Obtain the Correct Permissions

In addition to ensuring that electronic records and e-signatures aren't discounted simply because of their formats, ESIGN also specifies how to obtain consumer consent and provide disclosures.

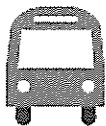
The act requires that a consumer affirmatively consent before electronic records can be used. The consumer must be informed that a copy of the must be available to them

in hard copy, written form. According to the act, before consenting, a consumer must be provided with a “clear and conspicuous statement” that outlines:

- The consumer’s right to have the record provided on paper
- The consumer’s right to withdraw consent and the consequences of withdrawing consent (fees, etc.)
- The scope of the consent
- How to withdraw consent
- How to update contact information
- How to receive a paper copy after consenting (and the cost of a paper copy)

ESIGN also specifies the following:

- Before consent is given, the consumer must be provided with a statement of the hardware and software requirements for access to and for retaining the electronic records.
- The consumer’s consent must be obtained or confirmed electronically (not just on paper).
- The manner of obtaining the electronic consent or confirmation must “reasonably demonstrate” that the consumer can access information “in the electronic form that will be used to provide the future information.”
- The consumer’s consent must be reacquired if there is a change in the hardware or software requirements needed to access or to retain the electronic record, and if the change creates a material risk that the consumer will not be able to access or store records delivered electronically.



VIRTUAL FIELD TRIP: If you’d like to learn more about how the Federal Trade Commission explains the concept of reasonable demonstration, review [this online article](#).

Lesson: CRM Software: Superior Service, Reduced Risk

Keeping Track of Your Valuable Client List

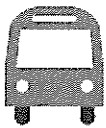
How can you meet a client's need for information if you've lost the client's phone number and email address? It's crucial that real estate professionals keep a running list of contact information and communication history for their clients and potential contacts, but such information is useless unless it's organized and easily accessible.

No one expects agents to remember every phone number or address that comes across their desks in the process of transacting business. Instead, most agents use contact relationship management (CRM) software to store, organize, group, and recall contact information; however, integration with the other systems and devices we've discussed is becoming more and more common. Let's take a look at some of the basic features for integrating these systems—maybe you or your agency is ready for an upgrade.

Most CRM software consists of three basic features:

1. Address books
2. Contact organizers
3. Communication tools

These features create the basis for CRM software and allow you to work with hundreds, if not thousands of contacts and their pertinent information.



VIRTUAL FIELD TRIP: Know all about CRM but aren't sure you're using it effectively? Check out this article titled "[How to Use CRM to Crack the Real Estate Game.](#)"

Address Books and Contact Organizers

The most important feature and defining characteristic of CRM software is the address book. Address books are simple in design, but allow for wide flexibility.

When selecting CRM software, ease of entry is key, because the majority of your time spent using the software will be entering new information. By entering all of your

contact information into a CRM system, you create a searchable database from which you can pull up data on the fly.

Many of the systems allow for peripheral devices to scan business cards and place the contacts directly into the software, a huge time saver.

Once you have your contacts entered into the system, you need to be able to organize your contacts in an effective way. Good CRM software will let you assign your contacts into groups (e.g., buyers, referrals, etc.).

Marketing campaigns are often geared toward certain contacts, either by buying or selling criteria or by geographic area. Selecting a tool that streamlines your marketing efforts will save you both time and money.

Communication Tools

Some CRM software includes tools for communicating with your contacts inside the same program as the contact databases. This allows you to store data, recall it, and make contact all in the same program. Commonly this is done via a built-in e-mail program such as Microsoft Outlook, or your CRM software can interact with an e-mail program of your choice.

Also, some CRM software has the ability to add event timelines, which will not only keep your contacts organized over the course of a transaction, but also will keep track of the status of a transaction and notify people accordingly. For example, if a particular sale is prepared and ready for the final closing, you can have your CRM software automatically notify everyone involved of the event and the planned closing. Such information keeps everyone connected and streamlines the transaction and contact processes.

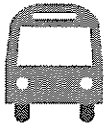
Lesson: Cloud Storage and Digital Organization Tools

Location, Location, Location

When you need to put your hands on a transactional document ASAP, but it resides on your laptop and you don't happen to have your laptop with you, what do you do? Where your documents are stored matters. Cloud storage allows you to access your documents, files, photographs, and other important content with just a few clicks from any device, and from anywhere you can get Internet access.

Options for cloud storage include:

- **Google Drive:** Every Gmail user has a Google Drive account, making it easy to share files between users. You can also create word processing documents, spreadsheets, and slides within the drive.
- **Dropbox:** Dropbox allows you to share folders containing documents and other files between clients or other agents, send photos, and more, all within a secure cloud-based storage system. You pay for the amount of data stored.
- **Box** is another cloud storage option, similar to Dropbox and Google Drive, and may be less expensive than Dropbox.



VIRTUAL FIELD TRIP: Check out these three cloud storage options.

[Google Drive](#)

[Dropbox](#)

[Box](#)

Hey, Hey, You, You, Get Offa My Cloud

Not sold on cloud storage yet? Other options for online document storage are available outside of the typical cloud environment. Consider the following.

- Evernote is a way to stay organized by placing your client notes and logs online, and syncing them between all of your devices where Evernote is installed.
- Skitch is a free tool created by Evernote, which allows you to easily markup digital photos to point out features or issues. For example, let's say you're touring a home with your buyers, and you notice a dark stain on the ceiling, snap a photo with your smart phone, and, using Skitch, you draw a circle around the problem area on the photo (or place an arrow pointing to it), then send the photo to the listing agent asking for an explanation.
- CamScanner: Want to convert a photo of documents from your smartphone to a PDF? CamScanner is a free app that will fit the bill. A paid version offers features, such as creating docs with password protection, auto uploading straight to Dropbox, and setting expiration dates for doc links.



Key Points for Unit 3

- Cloud storage allows licensees to access transactional documents from any device, provided an Internet connection is available.
- Transactional management software allows licensees to conduct entire transactions by email, including gathering electronic signatures. Consumer permission is required.
- Electronic signatures carry the same legal weight as hard copy documents, and are more common now than hard copy signatures.
- When selecting CRM software, ease of entry is key, because the majority of your time spent using the software will be entering new information.
- By entering all of your contact information into a CRM system, you create a searchable database from which you can pull up data on the fly.
- Address books, the ability to organize contacts, and communication tools within the software itself are all key features of a CRM package.

Unit 4: Technology Tools for Safety and Security

Introduction to Unit 4

Hacking. Data compromises. Security breaches. Identity theft. Scraping. Cyberattacks. These terms have all been associated with transacting business online. Before you place any sensitive data on a server, in a cloud, or even on your laptop, you should be thinking about how to protect it from the bad guys (and gals).



Objectives for Unit 4

Upon completion of this unit, you will be able to:

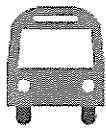
- Describe technological advances that keep online data secure.

Lesson: Reducing Online Risk

More Than Good Sense, It's the Law

Cyberstalkers have a great work ethic. They don't rest. They're relentless in combing through old emails, playing "Guess the Password," and creating malware and viruses to wreak havoc on others. The rest of us have to be vigilant to keep them out.

Did you know that you can be held liable if your client's online data is breached because you failed to take appropriate security measures? State law can require you to have a data protection policy, and you can be fined—you can even lose your license—if you fail to comply. In addition, if your data is compromised, you may be required to notify the state attorney general. Currently 22 states have that law on their books.



VIRTUAL FIELD TRIP: Read about data [security laws for the private sector](#) at the National Conference of State Legislatures.

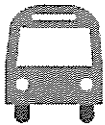
Preventive Measures You Can Take

Here are some online safety measures reported in *REALTOR® Magazine*, based on a presentation by National Association of REALTORS® attorney Jessica Edgerton. A sobering statistic she provided: 60% of small businesses victimized by a successful cybersecurity breach go out of business within six months.

- Update your operating system when prompted. These updates often have up-to-the-minute security measures.
- Lock down your social media. Don't allow personal data, such as your birthdate, to be public.
- Check your email settings. Make sure there are no suspicious rules in there, such as a rule to forward your emails to another account you don't recognize.
- Use secure document-sharing platforms instead of attaching sensitive documents to an email message.
- Warn your clients. Let them know about a new wire fraud scam, which asks them by email to direct their wired funds to another location. Ask them to verify

by phone, using numbers provided in advance, not those in the signature block of the same email.

- Shred personally identifiable information (PII) when it's no longer needed. This includes first and last name, Social Security Number, state ID or driver's license number, and bank account and credit card information.
- Regularly clear your email. Don't use it as a storage device for sensitive data. Instead, use secure backup devices.
- In addition to never opening links or emails that are suspicious, employ the same safety measure with text messages. Make sure your cellular provider includes data encryption.

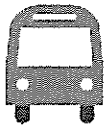


VIRTUAL FIELD TRIP: Here's a link to the referenced *REALTOR*[®] Magazine article, titled [Don't Be a Cybercrime Statistic](#).

Brokerages Are Easy Targets for Online Scams

Because of the high dollar volume involved in real estate transactions, brokerages are easy targets for hackers. Here are scams that have been perpetrated on brokerages:

- Wire fraud: Scammers pretend to be someone involved in a transaction closing, say there was a last-minute change, and include new wiring instructions for the buyer. Once the money is transferred, it's gone.
- Ransomware: When victims click on a link, ad, or attachment, or visit a website, a bot encrypts all of the victim's data. The data is then held for ransom of anywhere from \$200 to \$10,000, and unless victims pay the fee (and sometimes even when they do), they don't get their data back. In a little more than a year (April 2014-June 2015) the Federal Bureau of Investigations logged reported losses due to ransomware of more than \$18 million.
- Tech report ccams: A caller will identify himself or herself as a technical support person representing a reputable company, such as Microsoft. The caller will say that malware or virus has been identified on your computer, and ask you to turn over remote control to the caller to fix the problem. Instead, spyware is planted.
- Phishing: Phishing involves impersonating a legitimate person or company, and planting a virus in a link to gain personal information. It may happen through a link, popup, or instant message. When the user clicks on the phishing mechanism, the spammer gains access to the computer and data.



VIRTUAL FIELD TRIP: As avenues close to them, scammers will continue to invent new ways to create victims. Read [“Realtor struggles with horrific email scam for a whole year.”](#)

Additional Preventive Steps

Don't overlook firewalls and antivirus software. These are two basic ways to secure digital data. In addition, you should use never conduct business through an unsecured wireless connection. And back up your data frequently. Dentists like to say, “You only have to floss the teeth you want to keep.” A cybersecurity guru would tell you this: “You only have to back up the data you can't afford to lose.”

Here's another *REALTOR® Magazine* article titled [“9 Ways to Keep Data Secure.”](#) Note that this is one of a three-part article series. Links to two other articles (“4 Cyber Scams Targeting Brokerages” and “Data Security is the Law”) are available on this web page.

Lesson: Making Email More Secure

Where Are You Most Vulnerable Online?

You might be surprised to learn that email is the area where you're most vulnerable online. Phishing is the fraudulent practice of contacting someone online and pretending to be from a reputable source to induce the recipient to reveal personal information, such as passwords and credit card numbers. This is usually done through email.

Some experts recommend using your brokerage's email server (which will have security measures installed) rather than private email accounts, such as Gmail, which receives so much traffic that it creates a visible target for hackers. If you do use a private email account, take the following preventive measures:

- Don't open suspicious emails
- Don't click on links in suspicious emails
- Use a strong and longer password (a password of at least 26 characters is actually safer than a shorter one that has a combination of capital letters, lowercase letters, and symbols)

- Change your password at least once per month
- Never use personal information as your password (e.g., pet's name, child's birthday, address)

Two-Step Verification and HTTPS Security

Gmail and other email providers offer a two-step authentication process that you'd be wise to employ. When this feature is enabled, when you log onto your Gmail account using your username and password, before you can access your account, a code is sent to your cell phone via a text message that you must enter.

You probably already know that an "https://" in front of a website URL means that site is secure. But how do you make sure, in the heat of the moment when you're quickly accessing data online, that you've not accidentally logged in to an unencrypted network, exposing your data and privacy? To ensure all data between your browser and Gmail are encrypted, Google has enabled HTTPS security by requiring it as a default. When using Gmail, make sure "www.gmail.com" begins with "https://" (and not just "http://"). This ensures that you have a secure connection and more protection against snooping or tampering. This goes for other sites too, particularly before entering any sensitive data. Check the URL. If it doesn't begin with "https://," don't enter any data.

Save That Email

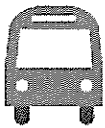
When you send a client a handwritten note that instructs them to do something, or if you send something that requires confirmation of delivery of information concerning their transaction, do you keep a copy of the correspondence or delivery confirmation response in their file? You would likely place a copy in the client's file. However, it's surprising how many licensees don't do that with an email containing the same information.

If you consult your brokerage's attorney about this, you'll likely hear that if it's in writing in any form, it's important enough to keep. You should be filing a copy of every received and sent email for a transaction.

Don't Forget Text Messages

With the proliferation of text messaging in the real estate industry, you should also have a plan to archive all business text messages as well. For Android users, try

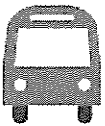
Mighty Text, SMS Backup+, or other compatible apps. For iOS phones, you can choose from SMS butler, ecamm, copytrans, and others. In addition to archive capabilities, some of these applications can automatically reply to incoming texts with a custom message. You can even create a library of stock phrases you can respond with instantly, such as “With a client. Will text or call as soon as we’re through.” Other applications allow you to text from your computer, which is synced with your Android phone and number.



VIRTUAL FIELD TRIP: Check out [Mighty Text](#).

Personal Email Tracking

Did you know that you can track when and where your email has been opened? Depending on your email provider and the device from which you’re sending the email, try using the web to search for “add-on services” that provide for this option. You could do a web search containing your email provider name and the words “email tracking” to find the options available to you. Free and paid subscriptions with names such as Yesware, ContactMonkey, and Boomerang are available online. The benefits of tracking every email for legal and marketing capabilities are numerous.



VIRTUAL FIELD TRIP: Check out [Yesware](#) here.

Lesson: Security in the Clouds

Cloudy, With a Chance of Malware

With all the buzz about cyberstalking, ransomware, phishing, viruses, and malware, the idea of posting anything where you don’t have direct access to it—especially where it’s rubbing shoulders with all that data from other companies and individuals—may make you feel a little vulnerable. A company may have its own firewalls and anti-virus software to protect data stored on its servers, but when computing is outsourced, control of security measures is too.

Before we get into making your cloud safer, did you know that there is more than one type of cloud?

- A private cloud is proprietary architecture dedicated to a single organization. Private cloud hosting may provide a more secure framework than public clouds, but its expense may be outside the realm of many companies. A private cloud may also be referred to as an internal cloud or a corporate cloud. It may be managed by the customer, the hosting provider, or a third party.
- A public cloud is available to anyone with a password—individuals and large companies alike. An example is Office 365.
- A community cloud is one that's shared with more than one organization or between consumers who have a shared goal or interest. It may be managed by one of the organizations, or by a third party.
- A hybrid cloud uses one of the above three cloud types—where some information is held within the cloud—but combines cloud access with exchange servers within the company. Office 365 offers this capability.

Risks and Risk Prevention in the Wild Blue Yonder

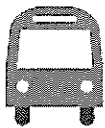
Risks inherent in cloud environments include:

- Data loss
- Security breach
- Cyberattacks
- Theft (identity, funds, intellectual property)

Let's face it. There's no way to eliminate risk online. But there are risk prevention measures that can be taken prior to jumping into the cloud.

- Ask the cloud computing provider what security measures are in place.
- Ask where the cloud servers are. Don't you want to know where your data is being stored? Wherever they are, make sure they're in a safe data center with appropriate security.
- Create unique passwords and user names for access. There are password services online that can create, store, and change your passwords for you. Your login credentials are either the weak link in the system, or an added measure of protection, depending on how easy they are to hack.
- Use industry-standard encryption and authentication protocols (e.g., Internet Protocol Security).

- Encrypt your data before you upload it. Encryption may be provided by the cloud computing provider. If not, do it yourself.
- Use multifactor authentication (e.g., login credentials + password + code).



VIRTUAL FIELD TRIP: Feeling techie? Learn about [Internet Protocol Security](#) from the Microsoft System Center library.

Cloud and Security Terms

In speaking with a cloud computing provider, or when researching online security, you may run into some buzz words. Let's review a few so you know what they mean:

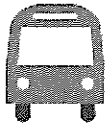
- **API (application programming interface):** Think of this as a hall pass, or a library card that you (or others) may use to access your data.
- **Dedicated server (also called "instances"):** Customizable, single-tenant solutions that put all of your data on your own dedicated hardware.
- **Multitenancy:** The idea that others will be sharing space on a single cloud.
- **Service level agreement (SLA):** covers the security and compliance requirements, which may include one of the following service models:
 - **IaaS (Infrastructure as a service)** – this puts more responsibility on the customer for the software and data; the customer uses only the apps provided via the cloud infrastructure (Gmail, Google Docs, CRM system, etc.).
 - **SaaS (Software as a service)** – Software and data is the responsibility of the provider; customers choose computing power, memory, operating system, and storage based on personal needs.
 - **Paas (Platform as a service)** – A hybrid of IaaS and SaaS; companies create their own applications on a rented platform; the user has control over the application, but no control over the infrastructure.

Cloud Security Measures

Cloud computing providers are responsible for keeping secure the data stored there. Security measures in use involve one or more of the following categories:

- Deterrent and preventive: These include warnings, strong authentication measures of cloud users, and encryption.
- Detection: System and network security monitoring measures that detect intrusion and signal control measures to prevent spread of damage.
- Corrective: These mitigate the effects of a breach by, for instance, restoring a system to an uncompromised backup.

Is cloud computing riskier? As one cloud industry expert stated, “Anything that can be possibly accessed from outside—whether enterprise or cloud—has equal chances of being attacked, because attacks are opportunistic in nature.” As the article (linked below) states, “control does not mean security.”



VIRTUAL FIELD TRIP: Read [Clouds are more secure than traditional IT systems – and here’s why](#), and learn why the author thinks the “folded arms gang” has it all wrong.



Key Points for Unit 4

- Licensees can be held liable if their failure to take appropriate security measures results in a breach of client data.
- Ways to protect data online include keeping operating systems up to date, locking down social media, using secure document-sharing platforms rather than email attachments, educating clients about scams, shredding personally identifiable information when it’s no longer needed, keeping email cleared, and avoiding opening email or clicking on links that are suspicious.
- Online threats to brokerages include wire fraud, ransomware, tech report scams, and phishing.
- Three additional security measures include performing regular backups, using firewalls, and keeping antivirus software current.
- To help secure email, use a two-step authentication process.
- Before selecting a cloud computing environment, ask what security measures are in place, and where the servers are located.
- When using a cloud service, create unique passwords and login names, encrypt data, and use multifactor authentication.

Unit 5: Technology Trends Impacting Real Estate

Introduction to Unit 5

Technology is wide open, and ever changing. You can geek out all you want, and in six months, be out of date. But maybe you already feel out of the loop. You don't have to be an early adopter, but it's helpful to keep an eye on emerging opportunities, so you're not caught unaware. Let's briefly summarize what you should have in place already. Then we'll look at technology trends and opportunities you may want to look to for the future. We can only hope to scratch the surface here. Each trend could be a course in itself. With that said, let's get going.



Objectives for Unit 5

Upon completion of this unit, you will be able to:

- Identify technology tools real estate licensees can use now to serve their clients and describe emerging trends to watch.

Lesson: Your Technology Foundation

Technology Doesn't Replace Service

We're happy to report that a 2016 survey by the National Association of REALTORS® actually found that the percentage of buyers who use real estate agents has risen—from 81% in 1981 to 87% in 2016. So technology isn't replacing the need for solid agents. So, relax. You don't have to be an early adopter of anything. Be the best real estate professional you can be.

That said, you need to have some technology basics down. These will serve as the foundation you can drive the leads you get from the whiz-bang latest gizmo technology tools. If you decide to embrace them. Don't run before you walk.

So, what makes up your technology foundation?

- Document management, CRM, CMA tools, MLS (these are your administrative tools for getting the job done)

- Your website
- Your blog or e-newsletter
- Your Facebook business page
- Neighborhood pages
- Facebook ads
- Search engine optimization (SEO)
- YouTube
- Instagram

How Strong Is Your Foundation?

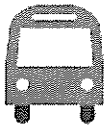
Ask yourself the following questions to determine whether you've got a foundation strong enough to build on.

- Are you up to snuff on document management software, do you regularly and effectively use CRM and CMA software? Are you a power MLS user?
- How current is your website? Is it interactive, engaging, sticky? Do you regularly run website analytics? When you direct people to it, are you proud of what they'll find there?
- Do you write a real estate blog or publish an e-newsletter? How often? Are you happy with the engagement of your readership?
- Are you on Facebook? Do you have and keep current a business page on Facebook?
- Do a Google search: "[your name] real estate agent [your market—be it a neighborhood, city, county]." Do you show up on the first page? If not, you need SEO.
- Are you on online neighborhood pages for your market?
- Do you run targeted Facebook ads?
- Go to YouTube and search for "[your name] realtor" or "[your name] [target market]" – can your market find you?
- Are you using Instagram effectively?

If you're not happy with your answers to these questions, you've got some work to do on your foundation before you attempt to tackle the latest and greatest technology tool.

Tips for Strengthening Your Technology Foundation

- Get trained on the basic software. You should have the CRM and CMA software tools down cold. Ditto MLS capabilities.
- Overhaul your website, if needed. Outsource it if web development isn't your thing. At minimum, you should have a page dedicated to you on your company's website, and it should be maximized and relevant, and updated as needed.
- Produce a blog, online column, or e-newsletter (or hard copy newsletter). Publish it regularly (monthly for a newsletter is ideal; blogs should be updated at least weekly). Make sure it's filled with relevant information, not a sales pitch.
- If you're on Facebook, do you have a business page? If not, develop one, and update it regularly (again, with relevant information about the market or the industry, and don't make it a sales pitch).
- If you're not ranking high for your name and market on Google, find out who is and see what they're doing to get ranking. Consider contracting with an SEO expert to make sure your market can find you online.
- Do you have a YouTube channel? Is it locatable by appropriate search terms? If not, take the steps necessary to maximize it. Create content that your audience wants, and make sure it can be found. See [8 Ways to Maximize Your YouTube Marketing Results](#) article below.
- Are you an Instagram and Twitter power user? If not, check out the videos below that will give you the basics to get started.



VIRTUAL FIELD TRIP: Read [8 Ways to Maximize Your YouTube Marketing Results](#).

VIDEO [3:47]: [Instagram for Real Estate Agents](#) (note that the "15-seconds" mentioned for videos on Instagram recently increased to 60 seconds).

VIDEO [3:00]: [Twitter For Real-Estate Agents: How-To Get Engaged Followers](#)

You Don't Have To Do It All, But What You Do, Do Well

Even within the foundational technology tools we've discussed, there are options. You don't have to do all of these. Pick only those that interest you, and do them well. This means making sure they're:

- Quality
- Consistent and current
- Locatable
- Leveraged
- Results-driven
- Measurable

Quality means it's professionally produced, aesthetically pleasing, and provides value. It's something people want to read and share with others. It keeps them coming back.

Consistent and current means you don't produce something once and never touch it again. You continually refine and update, giving people a reason to come back.

Locatable means it's been optimized for search engines.

Leveraged means you use all tools at your disposal to point to it. So if you have a blog, post a link to it on your Facebook business page, etc.

Results-driven means it's part of your overall marketing plan, there's you're doing it, and you know what that reason is.

Measurable means there's a way to determine its effectiveness. Is your readership growing? How many leads has it generated? Is it worth continuing as it is, or does something need to change?

Lesson: Managing Social Media

Yes, You Need to Be Here, Too

Whether you see yourself as a social media butterfly, or think Facebook is a waste of time, your competition is using social media to boost their visibility and their business, and you need a presence here, too. Here are the top social media sites for real estate pros.

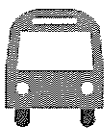
Active Rain: This is a real estate networking site for those in the biz, and it has more than 300,000 members. Membership is free, and it's easy to create profile and begin interacting with the community. So, why would you want to hang out with other real estate professionals? Three reasons:

- Referrals: Members can search for other members in a given area.
- Visibility: The site is searchable by the public, giving you a chance to increase your online presence.
- Knowledge: The site posts industry-relevant content.

LinkedIn: Your clients and prospects expect to find you here. They'll search for you and read all about you. Make sure your LinkedIn profile is current and conveys what you want it to convey. Post articles, join groups, make connections, and build relationships.

Localism, Nextdoor: These are private neighborhood social media sites. Sign up for the neighborhood you live in or target, provide good local content, and stay in the know. Don't try to market yourself here as a real estate professional! You'll be banned or booted.

Facebook, Twitter, Instagram: These are the big three for real estate agents, but don't feel you have to be on all three. Only take on what you're willing to keep up with. Note that, because Instagram is an app, the link takes you to a place where you can log in to see posts. To use Instagram, you need to download the app (also available on laptops/desktops without an app).



VIRTUAL FIELD TRIP: Visit the National Association of REALTORS® [“Field Guide to Twitter”](#) for links to articles on using Twitter for your business.

[National Association of REALTORS® Field Guide to Facebook for REALTORS®](#)

[A REALTORS® Guide on How to Use Instagram for Real Estate](#)

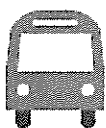
What About Pinterest?

Pinterest is a visual social media site. It's primarily used by real estate licensees to drive traffic to your website or other social media sites. You “pin” (post) images, ideas,

videos, and content you like on your (or another's) board, and share these with your followers. You can sign up with Facebook, allowing you to import those who follow you to join you on Pinterest as well. Pinterest has great search engine capabilities, so keep that in mind when you decide what to pin. You want to add items that will be found in searches, and are visually appealing enough that others will save them, giving them another opportunity to end up at your board.

To use Pinterest where you're discoverable, you'll need to get your website verified. This is easy to do within Pinterest itself, but there may be a delay of up to 24 hours. Next, you want to join real estate groups, which will make it easier for others to find your board. To join a group, message the owner or follow instructions posted on an owner's board. You can also create boards to add to your board, and ask collaborators to join it.

Next, comment on items that appeal to you on the site. You can also re-pin them. This could be added as a daily task to keep your board fresh and remain an active member. If Pinterest appeals to you, but you're a Pinterest novice, we've linked to a rather lengthy video below where you can get the basics of getting started.



VIRTUAL FIELD TRIP: VIDEO [13:06]: [How to get started on Pinterest as a real estate agent](#)

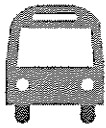
Use Social Media Scheduling and Management Platforms

Feeling overwhelmed yet? How do you keep it all straight? Social media management platforms, such as Buffer, Hootsuite, Hubspot, and TweetDeck can help you organize, schedule, link, repurpose, and maximize your social media activity. There's even a tool (MeetEdgar) that will help re-share your posts that aren't timely in nature (referred to as "evergreen").

Sprout Social allows clients to monitor social media mentions. So does KnowEm, which allows you to look for any key term on more than 500 social media sites. Google Analytics can also be used as a social media management tool, allowing the user to use data analysis to drive strategy.

Social media schedulers allow you to write all of your posts at once and then schedule them to publish at certain times of the day on certain days. You can also use them to track the analytics of your posts, discover which content performs best with your target audience, and learn the time and day when most engagement occurs. Hootsuite, Buffer, Sprout Social, and Tweetdeck all provide social media scheduling capabilities.

Vidcaboodle helps you organize your YouTube videos into categories on a visually pleasing channel page.



VIRTUAL FIELD TRIP: Read the *Forbes* article, "[15 Social Media Management Tools That Can Help Your Business Thrive](#)"

Here's a look at [Vidcaboodle](#).

Lesson: Snapchat

Snapchat as an Emerging Trend?

Although Snapchat has been around a few years, it wasn't embraced by adults (those over age 18) until fairly recently, and it's still not seen widespread use among real estate licensees. However, some licensees are hailing it as the Facebook of the future.

First, what is Snapchat? Snapchat is a free photo and video sharing application that, as of August 2017, had more than 173 million daily users who spent on average 30 minutes per day on the application. Photos, once opened, disappear in one to 10 seconds (many are shared for four seconds). Videos should be no longer than 10 seconds).

Fun fact? It would take you more than 10 years to view all the photos shared on Snapchat in the last hour.

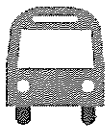
So, how are licensees using Snapchat? Primarily, to engage an audience. While a portion of all photos, videos, and stories (a number of photos or videos linked together) shared are industry-specific, licensees also use them to cover neighborhood hot spots, great local hikes, and local events.

One caveat: Snapchat doesn't have a locator within the application itself. People have to know your snap code or username to find and follow you.

Tips for Using Snapchat Effectively

If you decide to make Snapchat part of your toolkit, make sure you use it effectively. Following are some tips for doing so:

- Create a story around what you're doing that day. You may be on a buyer tour, for instance, and snap a photo of each house you show, then link them together as a story.
- Use videos when applicable. They tend to get more hits than photos. However, make sure you're using the right medium for the right message. Stellar view? A panoramic video might be best. Curb appeal (or curb repel): photo.
- Use geofilters. A geofilter is an overlay that's location- or event-specific. Center it around an event, such as a parade, and your followers may share it with others. Geofilters aren't free! Watch the video below to learn more.
- Don't just share industry-specific content. Be yourself, and be genuine (with discretion).
- As always, leverage your work. Promote your Snapchat account on other social media, and ask for followers.



VIRTUAL FIELD TRIP: VIDEO [2:20]: [How to Create a Snapchat Geofilter](#)

Lesson: Big Data, Big Connections

Your Value Proposition

Technology advances have put many of the tools once kept safely under lock and key into the hands of the consumer. Zillow Instant Offers now allows sellers to post their homes for sale and evaluate offers from pre-qualified buyers in an auction-type format. Rently.com allows tenants to register, pre-qualify themselves, submit to a background check, and then call a number to get the access code to show themselves the property. In Houston, half of the listings use a feature called Self Showings, which allows the same access. HomeLight.com geocodes and ranks agents by very specific markets (e.g., South Denver, under \$700K). Buyers can enter their criteria, and it will

return the top agents in that specific market in that area based sales, Yelp, Google reviews, etc. This is beyond what Zillow currently offers.

Don't think of them as disruptors. Think of them as business opportunities. What's the licensee's value proposition? Consumers will continue to look to real estate professionals for market data and industry knowledge, and help wading through the transactional quagmire. One managing broker said she uses this as her value proposition: "There are more than 200 steps in a typical real estate transaction, and more than 50 people involved, from lenders to appraisers to inspectors and title representatives, and my team and I coordinate all of that for you."

Your unique value proposition is the data between your ears, and the data at your fingertips.

Technology Can Help You Mine Data and Connect to the Consumer

The following tools can be used to stay in touch with consumers and the data they need:

- CRM – one of the first and most important tools you should have for client communication (e.g., Realvolve, NetSuite, Boomtown)
- Rapportive – an email add-on that displays social media info about contacts inside your inbox, so you don't have to be on the platform to comment on another user's content
- Boomerang – can be used to schedule communication messages in advance, such as for an email drip campaign with prewritten copy for various stages of a transaction
- BombBomb – video emails
- DriveBuy – sign riders w/text info to learn more about the house; has been around a while, but is still a very effective way to share listing data
- Wix for free listing websites – has been around a while too, and can be used to create a personalized site for each listing, such as 123MainStreet.com
- Matterport – 3D camera, virtual reality
- Google Forms – in a hot market where multiple offers are expected, add a Google Form in the MLS with instructions on when offers are due, and require, in addition to the offer, that buyer agents fill out a Google Form that asks price, terms, closing date, earnest money, financing, buyer names, pre-qualification/pre-approval info, etc.; you can provide your sellers with a link to

the form so they can see the offers that come in, in real time, bottom-lined and summarized

- [Zapier](#) (connects apps, automates workflow)

Lesson: Livestreaming Video

Video Is Here to Stay

Using videos to connect with clients and potential clients is both effective and powerful, and clients have come to expect it. Real estate licensees use videos for:

- House tours
- Testimonials
- Education, podcasts
- Community or neighborhood tours
- Community events (e.g., parades, festivals)
- Client appreciation parties
- Local business reviews
- Agent/brokerage promotion
- “About me” videos
- Housing market updates
- Humor
- Year-end review
- Live streaming (more on this in a bit)

Tips for Producing Better Quality Videos

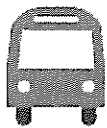
Shorter is better. You may think what you have to say is fascinating, and it may be, but you’ll lose your audience if your video is too long. Try to keep it under two minutes if at all possible. In the Hubspot marketing infographic linked below, statistics tell the tale:

- In 2016, 56% of videos produced were less than two minutes long.
- Videos under 90 seconds retained 53% of the audience to the end.
- Videos over 30 minutes retained 10% of the audience to the end.

Have a plan. To make your video enjoyable, have a plan. This means you know in advance the people, equipment, locations, target audience, and results you’re trying

to achieve. Do a dry run or dress rehearsal well in advance of the actual shoot so you know whether additional equipment is needed, or a different location.

Quality matters. Shaky film, poor lighting, and poor audio are turnoffs. Your audience shouldn't have to squint, turn the volume up to maximum, or be lip readers to hear and view your message. Use a tripod for picture stability, and you may need an off-camera microphone. Outdoor video takes advantage of natural lighting, but sound distractions (traffic, wind) can be issues. Indoors, make sure your lighting is sufficient and flattering to your subject.



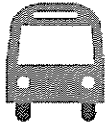
VIRTUAL FIELD TRIP: [Scroll to the video marketing infographic mentioned above.](#)

Livestream Videos for Maximum Impact

Every tip and rule about video use for real estate licensees also applies to livestreaming. Livestreaming means it happens in real time, which increases the level of audience engagement, and there are plenty of apps available to make livestreaming easy to integrate with social media.

- Twitter now owns Periscope, a livestream app that allows users to post live videos up to two minutes, 20 seconds long in their Twitter feeds.
- Facebook Live is a livestreaming tool built into the social media platform.
- Instagram live videos can be up to 60 seconds long.

Livestreaming is a great way to generate interest. Think about the different level of engagement between watching TV and watching a live stage production. Anything can happen, right? All the same rules for production quality and length apply with livestreaming, but the audience will likely be more forgiving, understanding there's no editing capability with a live feed. When using a livestream video, preparation and promotion are key because there will be no second chances. You announce the livestream in advance, invite people to join, then publish it on social media. The video can be saved and uploaded to YouTube for later playback, which gives you a second opportunity to "touch" your audience: "In case you missed the livestream video ..." (Instagram live videos disappear immediately after playing.)



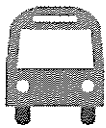
VIRTUAL FIELD TRIP: See [25 Ways to Use Livestream Apps for Your Real Estate Marketing](#).

Lesson: Virtuality: Spaces, Assistants, Transactions, Real Estate, Staging

Virtual Spaces: When Walls Fall

Brick and mortar brokerages are still prevalent, but many firms are realizing there's no need for the overhead created by keeping an office, salaried administrative staff, or expensive office equipment. Instead, they're creating virtual offices, allowing licensees to work from anywhere (which they do already). When an office space or staffing is needed, these firms rent meeting spaces and hire temporary workers. The firms can then put the savings into improved technology, marketing, and expanded client services.

Virtual assistance is already commonplace. Just Google "virtual transaction coordinator" and see how many hits you get. You can also find virtual administrative staff sites (such as Upwork, where you can assign office tasks or have someone manage your website and social media while you're out in the field) and virtual real estate assistants.



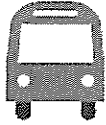
VIRTUAL FIELD TRIP: [Brickwork India](#) provides administrative staff on an as-needed basis.

[Meeting Space for Rent at Regus](#)

Virtual Real Estate

Some tech-savvy real estate firms are already using virtual reality to place buyers in properties—even if those homes haven't been built yet. For instance, a construction firm may build a portion of a dwelling, such as a living room and kitchen, and then provide buyers with virtual reality headsets (e.g., Google Cardboard) so they can "tour" the units in virtual reality, walking around the space, looking out windows to

see the view (provided by drone technology). If you're having trouble envisioning this, just take a look at the (yes) virtual field trip we've provided below.



VIRTUAL FIELD TRIP: [Selling the Future: Virtual Reality's Potential Role in Real Estate](#)

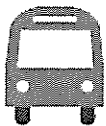
Virtual Staging, Because Empty Rooms Don't Attract Buyers

Ask any developer: A model home helps sell houses. Stagers are expensive, however, and moving furniture in and out is time-consuming and a hassle. Enter virtual staging. With virtual staging, you can add artwork, furniture, and accessories to show how the home could look fully equipped. You can even "replace" furniture that's already there.

The process works like this: You provide photos of the rooms you'd like to have staged to the virtual staging company. Some have furniture and accessories you can select from to create a specific look, or they'll select items for you.

Prices range from \$200 to \$500, depending on the number of rooms to be staged. Contrast that with cost of hauling in and renting furniture and accessories, and virtual staging costs about 10% of what a professional stager would charge.

Obviously, the property won't be staged when the buyers show up, but virtual staging photos can be left onsite to show buyers what the home could look like when appropriately "attired."



VIRTUAL FIELD TRIP: Check out a [virtual staging company](#) to see how this works.

Lesson: Emerging UX

Technology Is Only as Good as Its Interface

All the technological bells and whistles fall silent unless your market is using them. User experience (UX) is key to engagement. One reason virtual reality headsets haven't caught on like wildfire is they're cumbersome and awkward to use. That will

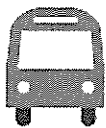
change as the technology evolves. In the meantime, make sure that any technology tools you use are fun and easy for your client base to use—and that they meet the purpose for which they were designed. They should pass the Aunt Gertrude test. Could your Aunt Gertrude easily engage with your site or app?

Check out the [Virgin America site](#), which won a Webby award for its UX. Note the large type size, the minimal information required on each screen, the use of white space, and the lack of distractors. You could probably book a flight even before that first cup of coffee, right? It likely wouldn't give your Aunt Gertrude any fits, either.

Mobile Technology Goes Beyond Millennials

Your site and your apps have to be mobile-friendly. Two terms you'll hear are *responsive* and *scalable*. What's the difference? Glad you asked.

- **Responsive** means that there are two versions of the layout. Let's take an email message, for instance. Responsive email will adjust the layout of the email message (its type size, images, and buttons), even hiding some, or swapping content. If you open this email on your laptop, it looks one way. If you open it on your mobile device, built-in code magically transforms it, optimizing it for a smaller screen.
- **Scalable** means mobile-friendly. This is one design that works well across both platforms (desktop and mobile). They require no magic code, and appear the same, just scaled down for the smaller device. It's designed to work the exact same way across devices. Other than the scaled-down size, nothing changes or is unusable just because the user is on a different device.



VIRTUAL FIELD TRIP: Check to see if your website is mobile-friendly with this [Google tool](#).

Lesson: Artificial Intelligence Gets Smarter

Don't Worry—You Won't Be Replaced by a Robot

Artificial intelligence (AI) is playing an increasing role in many industries, and may soon begin to make its mark on real estate. You've likely experienced AI without really thinking about it as such. Ever interacted with a chat bot, a computer program

designed to simulate conversation with human users, usually over the Internet? When the user poses a question, the chatbot returns an appropriate answer, often channeling the “conversation” in the most appropriate direction.

AI can be categorized as narrow, general, and super intelligence.

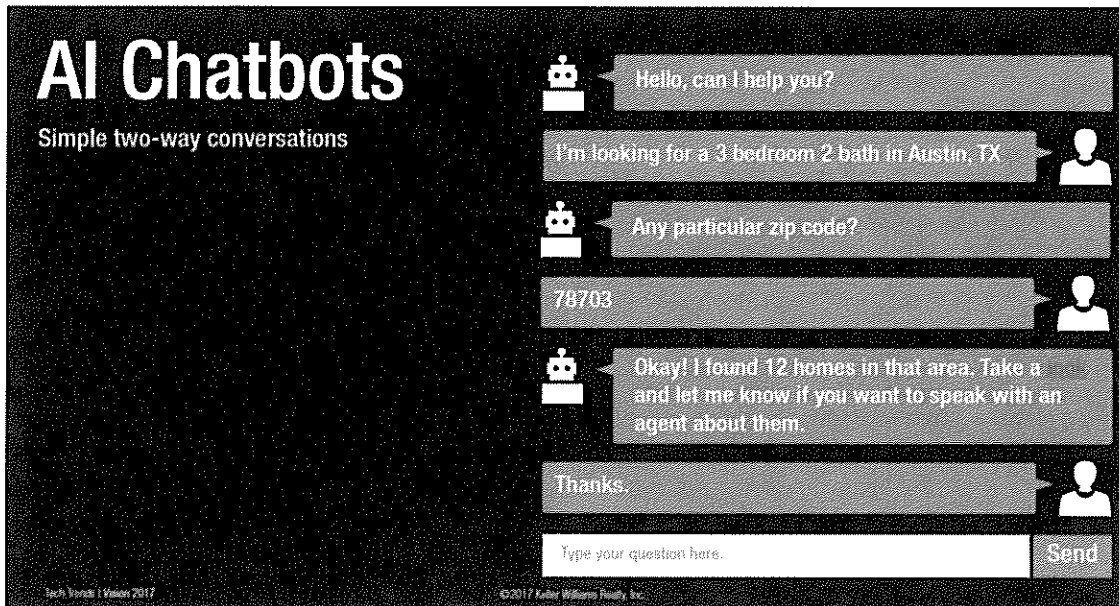
- **Narrow AI** performs specific repetitive or mundane tasks. Over time, as it gets better at each task by gathering data from the interactions, AI can perform better than a human being at the same task.
- **General AI** means the machine can operate all tasks at the human level of intelligence. Think of the HAL 9000, in “2001: A Space Odyssey,” when it says, “I’m sorry Dave, I’m afraid I can’t do that.” Luckily, this version of AI remains the realm of science fiction.
- **Super intelligence** is human intelligence, but better. Fortunately, this is merely a gleam in AI scientists’ eyes at the moment.

For now, take heart in knowing that 100% of all AI in use in real estate today is of the narrow AI variety, generating unfailing assistance for repetitive tasks, and not a replacement for you.

AI Improves Agent Response Time

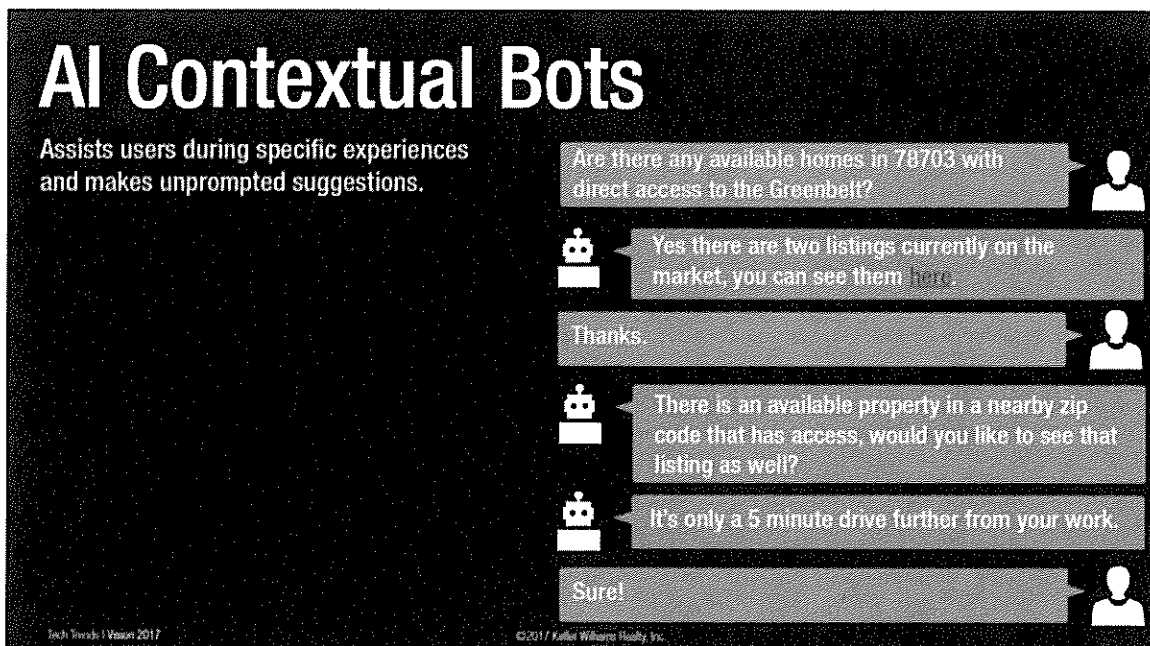
Chatbots are popular because of their ability to provide consumers with information they need without delay. Chatbots can be designed to understand and interpret questions posed in natural language, and provide information from data stored in their databases through a connection to the MLS and third-party information providers.

Here’s an example of how a chatbot might work for a real estate application.



Chatbots Can Also Be Contextual

Contextual chatbots help users by going beyond answering questions to also making suggestions and recommendations based on the user's input. They're called contextual because they're based on not just understanding the user's question, but also the context of the chat. Here's an example of a contextual chatbot.



Using an AI Personal Assistant

AI Personal Assistants

Understands and responds to commands which impacts other applications outside of the conversation.

Send me a market report of 78703.

Would you like the report for last month or last year?

Last month is fine.

Sent.

This is great. Can you share it with all of my leads anticipating to close this month.

No problem.

Tech Trends | Vision 2017

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Key Points for Unit 5

- Buyers' use of real estate agents has risen since 1981.
- Technology is changing the way consumers use real estate agents. Agents must stay on top of technological changes to continue to provide value.
- Foundational technology for licensees includes CRM, MLS, website, blog or newsletter, Facebook business page and ads, SEO, YouTube, Instagram, and neighborhood pages. A licensee need not be active in all of these, but should maximize the ones used.
- Technology tools used should be quality, consistent and current, locatable, leveraged, results-driven, and measurable.
- Active Rain is a social network specifically targeted to real estate professionals.
- Snapchat is an engaging photo and video sharing application.
- Data knowledge, accessibility, and delivery will be key to real estate professionals' value proposition.
- Livestreaming video apps include Periscope, Facebook Live, and Instagram.

- For videos to be effective they should be brief, well-planned, with quality lighting, picture, and audio.
- Virtual reality tools include virtual spaces, assistants, transactions, real estate, and staging.
- Technology is only as good as its interface. The user experience must be engaging and easy to use.
- Mobile technology that's responsive has two display versions. Depending on which device is used (e.g., laptop or mobile phone), the appropriate version is displayed.
- Scalable means mobile-friendly—one design that works well across all platforms.
- Artificial intelligence in use in real estate today is of the general variety. A common application is the chatbot, which answers user questions online.

Reference Materials List
Technology Tools, Trends, and Risk Management

- National Association of REALTORS(R) "Real Estate in a Digital Age" 2017 report
- NAR "REALTORS" Property Resource video
- NAR News Release: "Realtors Property Resource(R) Joins SentiLock to Offer Realtors(R) On-the-Spot Property Data"
- Federal Trade Commission article "Joint FTC/Commerce Department Report Released on 'Reasonable Demonstration' Requirement of ESIGN"
- "Security Laws for the Private Sector" - National Conference of State Legislatures
- REALTOR(R) Magazine article, "Don't Be a Cybercrime Statistic."
- REALTOR(R) Magazine article, "9 Ways to Keep Data Secure"
- Internet Protocol Security from Microsoft System Center library
- National Association of REALTORS(R) Field Guide to Facebook for REALTORS(R)
- A REALTORS(R) Guide on How to Use Instagram for Real Estate (NAR)
- Forbes: "15 Social Media Management Tools That Can Help Your Business Thrive"
- Curbed.com: "Selling the Future: Virtual Reality's Potential Role in Real Estate"