Answers to Data Science Task Questions

1. You need a clear data science task before collecting data. E.g., if you want to compare item popularity then you can use their last 7-day purchase. Another example is if you want to suggest similar items to users (Amazon features: people view this also view those, people purchase this also purchase those) then you need history of user views and/or purchases. One more example is if you want to suggest item bundle (Amazon feature: frequently bought together) then you need history of user purchases. So the final answer is there’s no better dataset, only suitable one to your specific purpose.
2. To be honest, your current ways of ranking products are good enough. You just need to implement personal recommendation and target marketing.
3. The most popular and fundamental way is A/B testing: you divide users into 2 groups: control group use baseline system, treatment group use new system without informing them about their actual groups and then compare their views and/or purchases. There are some new features like similar item and bundle recommendation that cannot be tested in this manner (because people know it’s new).